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## EDITORIAL NOTE

In accordance with an Act of the Council of the Archaeological Institute of America, December 28, 1915, ART AND ARCHAEOLOGY became a 64 page illustrated monthly magazine, 8 x 11 inches instead of 7 x 10 inches, beginning with January, 1916. For this reason we close Volume II, with the number for November, 1915, and shall hereafter issue two volumes annually of six numbers, 384 pages per volume. Volumes I and II, complete, 9 numbers, pp. 264 plus 104, may be obtained unbound for \$3.00; bound in cloth \$4.00; in morocco \$5.00, on application, with check to ART AND ARCHAEOLOGY, The Octagon, Washington, D. C.

THE MANAGING EDITOR.

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CARYATIDES. JEAN GOUJON. MUSÉE NATIONAL DU LOUVRE. PARIS.

# ART AND ARCHAEOLOGY

VOLUME II

JULY 1915

NUMBER 1

## THE HUMAN FIGURE AS AN ARCHITECTURAL SUPPORT

JOHN SHAPLEY

SO CLOSELY does the human figure used as a support correspond to the architecture in which it is found, that the historical development of the sculpture and of the architecture can be treated as parallel. This sculpture, as it will be considered in the present discussion, comprises those human figures that are used, truly or ostensibly, for purposes of vertical support. The male figures are Atlantes, or Telamones; the female are Caryatids, and the latter name may be suitably applied to angels employed in this way, for their sex is ambiguous.

Such a form of supporting member is not an essential feature; it is rather an exceptional and arbitrary one. Classical sculpture has but few types to show, and the Middle Ages are still poorer in examples. In Renaissance times the Greek and Roman forms were freely used in Italian sepulchral monuments, and later these supporting figures took their most unrestrained and irregular development in Baroque architecture, especially in Germany.

Frequently Caryatids and Atlantes are mere decorative supports without structural significance. The Maidens of the Erechtheum, which have had the widest currency, stand free, and form an integral part of the architecture. The imitations of them in the Renaissance often keep their structural use, but such is not the most common treatment. In the case of the Giants at Agrigentum (fig. 6) and at

the Theater of Dionysus in Athens, of the Caryatids of the Villa Albani (fig. 2) and Tralles types, of the supporting figures in Romanesque and Gothic architecture generally, that is, in the majority of examples down to the Renaissance, the actual weight is borne by a wall or pier behind the figure, and the figure could be removed with only superficial damage to the structure.

The use of the human form in connection with vertical support suggested itself naturally to many peoples. The Egyptians carved gigantic statues with their backs against piers at Thebes and at Ipsamboul in the reign of Rameses II, thirteen centuries before Christ. These colossi do not themselves uphold any weight but they emphasize the appearance of eternal stability. The Assyrian bas-reliefs show the thrones of the kings held up by human figures. On one, Sennacherib views the captive procession from a royal seat that is decorated with nude and draped supporting dwarfs symbolizing the relation of subject to monarch. A similar throne in relief, found at Malthai, in northern Assyria, debases some of the nude slaves even further by representing them with tails. A Persian continuation of the idea of this elevation of the ruler on the strong uplifted arms of his subjects occurs in the Naksh-i-Rustem relief. In the West are found Caryatids employed as supports for black Etruscan vases of the sixth



century B. C. Some of these are free-standing and so thin that they immediately suggest their derivation from wooden statues; more sturdy ones in relief hold up both hands. Some have a double cushion above their heads. Others have wings extending to their feet; the conventional treatment of the feathers betrays their eastern origin.

The Greeks and Romans used similar figures in their minor arts, as in mirrors, vases, and thrones. Pausanias tells of examples on the great throne of Amyclaeon Apollo. It was in architecture, however, that the highest development was attained for both Caryatids and Atlantes.

The earliest instances of Greek Caryatids in architectural use were found when the Delphic treasures were excavated. These figures with Ionic costume date from the sixth century B.C. They stand free from the wall and support the weight of the porch roof (fig. 1). The light, almost fragile, treatment of the hair and the drapery is characteristic of the workmanship of the Ionic islands, and this over-elaboration, together with the lofty *polos* intervening between head and capital, must have detracted appreciably from the sense of stability and repose. The idea of having the maidens bear the weight through animation rather than strength was already in the mind of the sculptor, but the love of detail has somewhat prevented its expression.

Passing over such minor classes as the one represented by the colossus of Eleusis and similar late Roman examples called priestesses of Ceres, there are three dominating types of Caryatids, all of Greek creation but frequently imitated by the Romans. The earliest of these types is represented by the Caryatid found at Tralles. The figure is rather tall and the

elevation of one hand further increases its apparent height. Braids of hair strengthen the neck, and the smooth surfaces of the drapery tend to conceal the inherent weakness of the human form. The good height fits the proportions of the Ionic order. The chiton and himation are Ionic; so are the workmanship and provenance. The Maidens of the Erechtheum, representing the second group, are correspondingly Doric-like (fig. 5). They wear the Doric chiton and diploidion and bear up Doric capitals. Into this order fall very well both their own square proportions (accentuated much more when the braids which fall on either shoulder and brace the neck are unbroken, as in the Vatican copy [fig. 4]) and also the relatively low proportions of the porch as a whole. The third type is that of the Caryatids from the Villa Albani (fig. 2). The figures are taller than those of the Ionic and Doric types, with drapery breaking into folds too complicated for the architectural solidity that such statues demand. The high *polos* is adorned with rosettes and with the foliate decoration of the Corinthian order, which these Caryatids suggest.

It should be noted that Caryatids were painted as well as sculptured, although of course the painted types have no particular relation to the architecture in which they are found. From the Ptolemaic period comes the zodiacal circle of Denderah, which depicts the Egyptian conception of the universe. The deities raising both hands hold up the circle of the heavens in which the various constellations are represented. The designs of the cupola of Santa Costanza at Rome show two circles of Caryatids standing in flowers. Directly above each figure of the lower circle the upper has a compact group of three. The dome is thus marked



FIG. 1. FAÇADE OF THE SO-CALLED CNIDIAN TREASURY AT DELPHI.

out as if by the meridians of a globe. This is a The figures are draped and posed like a draped winged figure with both hands raised to hold a wreath in which is generally painted a portrait head. Early form of Caryatid, especially adapted to examples from Palmyra resemble in dress painting, came from the Orient in the and pose some Myrina terra-cottas that



are ultimately descended from the Victory of Paconius. At Palmyra these Caryatids still represent Victories; but in the Byzantine consular diptychs of the sixth century A.D. and at S. Prassede at Rome they have become angels, just as the floating Victories with a wreath held between them became angels on Christian sarcophagi. Santa Maria della Fratte at Ausonia shows the use of this Palmyra type in the West as late as the eleventh century. Impossible as such slender figures are in real construction they are all the more adapted to decorative ends when conceived as supernatural beings.

Atlantes were not so commonly used in classical architecture as Caryatids; nevertheless there are examples from both early and late periods. The Giants of the temple of Zeus at Agrigento date from the fifth century B.C. (fig. 6). These are nude male



FIG. 2. CARYATID OF VILLA ALBANI, ROME

this manner that the Hercules of the Olympian metope performs the labor of Atlas in holding up the heavens (fig. 7).

Atlantes of a second type are those from the Villa Albani, now in the Louvre (fig. 9) and at Stockholm. They stand with hands on their hips and the head inclined

forward so that the weight rests on the shoulders and the back of the neck. Other fragments of this type were found at the theater of Dionysus at Athens. In the same theater also, the latest stage front presents a third type in the form of a crouching figure. These classical types of Atlantes are all nude, giant slaves, imaginary beings, muscular enough to endure the crushing weight and toil to which they are subjected. They stand in sharp distinction from the Caryatids, which are noble maidens, dignified in pose and dress, unoppressed by the burden of the architecture, and always

elastic and free. Perhaps a third type would be represented by such figures as the Persians bearing entablatures mentioned by Vitruvius (cf. figs. 10, 11).

With the advent of the solid heavy construction of the Romanesque architecture the supporting figure becomes constantly regarded as overburdened by the mass of



FIG. 3. CARYATID FROM THE ERECHTHEUM IN THE BRITISH MUSEUM.

the architecture he is trying to sustain. Therefore, the Atlantes are continued, but the female Caryatids drop out. The Romanesque Atlantes are no longer true sons of Atlas, endowed with supernatural strength, but are ordinary men crushed by the massive masonry. The hands are raised and the arms contorted and strained; the neck is bent to the point of breaking and the weight bears down on the shoulders. Typical examples are the straining figures found on the corners of the pulpit in the church of S. Ambrogio at Milan (fig. 8). The head is pressed

downward on the chest while both hands help to support the weight above. The motive is that of a man who is just ready to fall, with broken back, beneath the burden he can no longer bear. The seated figures that flank the west doors of the Cathedral of Piacenza seem to have more strength but are still incapable of long enduring their load. The actual suffering is most clearly expressed in the case of two others from the Cosmatesque portal of the Cathedral at Civit  Castellana, for there the motive is explained by the inscriptions. One implores,



FIG. 4. ROMAN COPY OF A CARYATID OF THE ERECHTHEUM. VATICAN MUSEUM, ROME.



"Miserable Eneas help me!" (Eneas cative luta me). "I can not because I am breaking," (Non possum quia crepo) is the reply.

It is only a short step from this to the pure symbolism of the Gothic treatment. The transition is well shown in the partly Romanesque, partly Gothic, Cathedral of Modena. Here are a series of supporting figures on the parapet. One is of the Romanesque type, standing with upraised hands and with head bent over so far that the weight rests on the shoulders. The artist was not content, however, with making figures merely laboring. He carved two of them as acrobats with their bodies overturned in impossible distorted positions. And finally a grotesque, that has met his doom and is being devoured by a monster, completes the transition to the purely decorative Gothic conception.

The short devious contours of the human figure do not accord with the long open lines of Gothic architecture, therefore it is not introduced for structural purposes, but only incidentally for decora-

tion and for more or less conscious symbolism. The Atlantes are caricatures; the Caryatids are angels. As examples of the former there are grotesque dwarfs at the springing of the arches in the church at Bury (Oise), and others help to support the compound shafts of the clearstory arcade at Nevers. One of the figures who strains to uphold the cornice of the apse at Rheims is a hunchback; another puts his hand to his ugly head as if it were splitting with pain. More pleasant symbolism is found in the Caryatids. The angel at the impost of an arch at Loches symbolizes the celestial power and is unconscious of the weight that the outspread wings seem to bear so easily. Though curved to the form of brackets, in architectural feeling the buoyant floating angels of the fountain of Claux Sluter fall into this category. The constructive principle of Gothic architecture was not adapted to the use of Caryatids and Atlantes and no modifications were made in their favor, so that this use of figures, felt to be extraneous, practically ceased.

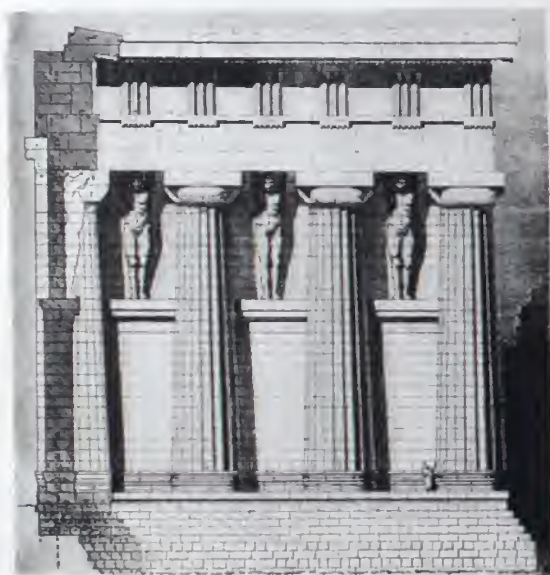


FIG. 6. GIANTS OR ATLANTES AT AGRIGENTUM.



FIG. 7. METOPE AT OLYMPIA, GREECE, REPRESENTING HERCULES HOLDING UP HEAVEN.



FIG. 8. PORCH OF THE MAIDENS, OR CARYATIDS OF THE ERECHTHEUM, ATHENS.





FIG. 8. AN ANGLE OF THE PULPIT IN THE BASILICA OF S. AMBROGIO, MILAN.

The discontinuance of the use of Caryatids and Atlantes in the Gothic period and the consequent break in the development of types left the Renaissance free to establish its own traditions. It turned at once to classic examples and began merely to reproduce them. As early as the fourteenth century, Caryatids were employed by Tino da Camaino in the Pazzi monument in Santa Croce at Florence. There is perhaps a slight feeling of pressure still expressed in the inclination of the heads, but this attitude also emphasizes the expression of sepulchral repose and sentiment. When Donatello was commissioned to make the Brancacci monument in Sant' Angelo a Nilo at Naples, he went direct to the museum of the Bourbons and found there a classical Caryatid with the weight resting on a shoulder cushion; this he copied in a modified form. The best adaptation of all, perhaps, because taken from the best, the Erechtheum, archetype, is the work of Jean Goujon at the Louvre (cf. frontispiece). All these imitations are characteristic of the eclectic spirit of the Renaissance. The Otto-Heinrichs-Bau at Heidelberg in the late Renaissance already shows on its façade the ungoverned forms which are common in Baroque architecture and too modern



FIG. 9. ATLANTES FROM VILLA ALBANI, NOW IN THE LOUVRE, PARIS.



FIG. 10. PERSIANS FROM THE EDITION OF VITRUVIUS BY FRA GIOCONDO, VENICE, 1511.



FIG. 11. CARYATIDES FROM THE EDITION OF VITRUVIUS BY FRA GIOCONDO, VENICE, 1511.





FIG. 1. THE CRUCIFIXION BY DADDI. COLLECTION OF MR. DAN FELLOWS PLATT, ENGLEWOOD, N. J.

## THE LOAN EXHIBITION OF ITALIAN PAINTINGS IN THE FOGG MUSEUM, CAMBRIDGE

G. H. EDGEELL

LOVERS of Italian art have of late had a treat in the loan exhibition of Italian paintings, opened from March eighth to eighteenth, in the Fogg Museum, Cambridge. The exhibition came as the first important result of a policy definitely embarked upon by the director and the visiting committee of the museum. The impossibility of competing, in the matter of a permanent collection, with elaborate and heavily endowed institutions will always be felt by anyone connected with a small museum, and especially one under the aegis of a university. On the other hand it is possible, along with the slow expansion of a permanent collection, to hold periodically loan exhibitions which, albeit for a short time, will educate and give pleasure not only to the student but to the public. The material for such exhibitions lies with the private collectors, who hold great numbers of fine works seldom seen by the public, and with the deal-

ers, who have in their possession many good pieces as yet unsold. To assemble such an exhibition requires tact and energy, but the result will justify emphatically the pains exerted.

Of this the Fogg Museum exhibit was an ample proof. The problem was to collect from many sources a series of paintings which, in connection with the permanent collection of the museum, would illustrate fairly adequately the development of Italian painting. In other words, not one or two but every school of Italian painting had to be represented by several characteristic works.

For the purposes of study one generally divides Italian painting into five great schools. In the southern and central part of the peninsula the Sienese and Umbrian schools existed side by side. Taken together they represent the most religious phase of the essentially religious art of Italy, yet attaining their aims by widely diverging paths. The former, perhaps Italy's ear-



FIG. 2. THE MADONNA BY DADDI. COLLECTION OF MR. GRENVILLE L. WINTHROP, NEW YORK.





FIG. 3. PORTRAIT OF A LADY, BY UCCELLO, COLLECTION OF MR. PHILIP LEHMAN, NEW YORK.

liest school, remained true to the hieratic and decorative ideals of the Byzantine art whence all Italian painting sprang. In other words it remained fundamentally mediaeval. The latter, inspired by the tenderness and humanity which control the religious thought of today, cast aside the Byzantine ideals and developed the more humanly lovely art which culminated so cosmically in the painting of Raphael. Farther to the north the school of Florence, instructress of all the schools of Italy, made the technical advances which carried painting from the middle ages to modern times, and combined, in one or another of its many geniuses, well-nigh all the excellences of the other centers of Italian art. Finally, in the upper peninsula, the north Italian school, learned in the technique of Florence, passed on its heritage to the Venetians, who fitly brought the Renaissance to its culmination in Italy with a series of color symphonies unequalled in the history of art. It was the heavy task of illustrating, in a small way, this tremendous artistic movement that the Fogg exhibition undertook.

Fortunately the permanent collection of the Fogg Museum is rich in examples of the Sienese school. Moreover it possesses a small panel, representing *Christ in Limbo*, which is a pure specimen of the Byzantine art underlying the Sienese. A small *Saint Agnes*, by Ambrogio Lorenzetti, shows the fine line and brilliant color of mediaeval Sienese painting at its height, and a large *Madonna and Angels*, by Taddeo Bartoli, represents the transition from the middle ages to the Renaissance. The museum also possesses works by the later Sienese, Matteo di Giovanni, Benvenuto di Giovanni, and Francesco di Giorgio, as well as works suggesting Giovanni di Paolo and Girolamo di

Benvenuto. To this array the loan exhibit was able to add several works. Mrs. W. Austin Wadsworth of Boston loaned a panel representing *Saint Catherine of Siena*, much repainted but unmistakably of the school of the greatest of Sienese: Simone Martini. Mr. Henry L. Williams of Cambridge loaned two panels, a *Deposition* and a *Madonna and Saints*, of the school of Pietro Lorenzetti. Perhaps the most delightful contributions to the Sienese Collection were two tiny panels, loaned by Mr. Dan Fellows Platt of Englewood, New Jersey, portraying *Saint Margaret* and *Saint Apollonia*. These works are by Sassetta, an artist who bridged the gap from the middle ages to the Renaissance. Somewhat later than Taddeo Bartoli, he excelled him in delicacy, charm, and originality.

Sienese art was far better illustrated in the loan exhibition, however, in its reflection on the early art of Florence. In the period of the *Giotteschi*, that is from Giotto to Masaccio, the Florentine school was almost wholly dominated by that of Siena. A panel with several scenes, in the permanent collection of the museum, well represents this Sienese-Florentine art. It has recently been identified by Doctor Sirèn as a work by Jacopo di Cione. To this the loan exhibition added two works by Bernardo Daddi and a fine *Madonna* by Lorenzo Monaco. Mr. Platt sent a Daddi *Crucifixion* (fig. 1), in delicacy and jewel-like color comparable to the Jacopo di Cione. Mr. Grenville L. Winthrop of New York loaned a *Madonna* (fig. 2), by the same artist, a perfect example of the soft and tender type which was aptly to exercise so great an influence on the art of Umbria. The work by Lorenzo Monaco, loaned by the P. W. French Company of





FIG. 4. MADONNA BY FRA ANGELICO. COURTESY OF MESSRS. DUVEEN, NEW YORK.

New York, represents a somewhat later art but one still impregnated with the harmonious line and religious mysticism of the Sienese school. Works by Spinello Aretino, another Sienese-Florentine, were included in both loan and permanent exhibitions. By far the finest piece of Florentine painting in the exhibition, however, was a *Portrait of a Lady* (fig. 3), one of the



FIG. 5. THE JUDGMENT OF PARIS. COURTESY OF THE EHRLICH GALLERIES, NEW YORK.



gems of Mr. Philip Lehman's collection in New York. The painter, Paolo Uccello, belonged to the so-called "scientific movement" in the early years of the Renaissance. Perspective was his hobby, but that he did not permit science to



FIG. 6. MADONNA AND CHILD WITH THE YOUTHFUL ST. JOHN, BY FILIPPINO LIPPI (?), COLLECTION OF MR. ARTHUR HOE, NEW YORK.

cloud his artistic sense is well proved by this exquisite portrait. The rich scarlet of the drapery and the cool blue-green of the background only emphasize the subtle modelling of the face and hands, so expressive of the ever-present Florentine

tactile sense. Connoisseurs will recognize the affinity of this work to the several famous profile portraits by Pier de' Franceschi, Antonio del Pollaiuolo, and others which adorn the galleries of Europe. It is closest of all, however, to

the portrait by Domenico Veneziano, a fellow "scientist," which only recently has added its lustre to Mrs. Gardner's famous collection at Fenway Court, Boston.

The more sentimental and religious art

of Florence, at approximately the same period, was well displayed in a fine *Madonna* (fig. 4) by Fra Angelico, loaned by Messrs. Duveen of New York. Hanging near the Uccello it formed a fine basis for comparison of the two trends of Florentine art, and, taken in connection with the two specimens of the work of the same artist, one in Fenway Court and one in the Boston Museum, it gave students an excellent opportunity to acquaint themselves with originals by the "blissful monk of Fiesole."

The quaint revival of classicism in Florence—classicism in the garb and trumpery of the contemporary Renaissance—was admirably shown in a panel of the *Judgment of Paris* (fig. 5), loaned by the Ehrich galleries of New York. The artist, as yet unidentified, suggests Pesellino, joyous follower of Fra

Filippo Lippi. At one time the panel must have formed the extremely attractive decoration of a Florentine wedding chest, or *cassone*.

Another important example of Florentine art was loaned by Mr. Arthur Hoe of New York. A *tondo*, representing the

*Madonna and Child with the Youthful Saint John* (fig. 6), it strongly suggests Botticelli, and still more strongly a youthful work of his great pupil, Filippino Lippi. Doubtless connoisseurship will soon busy itself with the problem of a definite attribution for so distinctive a work.

From Radcliffe College came a fine *Madonna* by Ghirlandaio, or perhaps his pupil Bastiano Mainardi. Mr. W. E. C. Eustis of Boston loaned a small *Annunciation* by Lorenzo di Credi, co-worker with Leonardo in the *bottega* of Verrocchio. All these examples of Florentine art were fortified by others in the permanent collection of the museum. Among the latter were paintings by Benozzo Gozzoli, Fra Filippo or perhaps Fra Diamante, and Fra Bartolommeo. By the latter artist is a small *Cain and Abel*, once attrib-



FIG. 7. A BISHOP SAINT BY ALEGRETTO NUZI. COLLECTION OF MR. HORACE MORISON OF BOSTON.

As in the case of the Siene, the permanent collection of the Fogg Museum is well supplied with works of the Um-



brian school. To these the loan exhibition added several interesting and illuminating specimens. Of special interest in this connection were the works by



FIG. 8. AN UNFINISHED MADONNA BY PINTORICCHIO. COURTESY OF MESSRS. DUVEEN, NEW YORK.

Daddi, before mentioned, since this artist bore so profound an influence on the Umbrian school at its inception. Through him it partook of elements both of the Florentine and Sieneese schools. Daddi's first great successor in Umbria was Alegretto Nuzi, and an extremely decorative panel by him, representing a *Bishop*



FIG. 9. THE MARRIAGE OF ST. CATHERINE, BY FRANCA. COLLECTION OF MR. HORACE MORISON OF BOSTON.



*Saint* (fig. 7), was loaned by Mr. Horace Morison of Boston. Nuzi's art falls into the domain almost of pure design, and of this tendency Mr. Morison's panel, with its vivid scarlet and cool gray-blue, is a most sumptuous example.

Of the work of the later Umbrians many specimens exist in the Fogg Museum. There are several panels attributed to Antoniazio Romano, showing the reflection of Umbrian painting in Rome. One, the most important, is a vigorous *Pope Saint* which many critics have also attributed to that most powerful and rare of Umbrians: Melozzo da Forlì. Another important Umbrian painting in the museum collection is a *Holy Family* by the ever winsome Pintoricchio, one time master of Raphael. From Messrs. Duveen came another work, an *Unfinished Madonna* (fig.



FIG. 10. PORTRAIT OF TITIAN'S DAUGHTER (?). BY PARIS BORDONE. COURTESY OF THE EHRLICH GALLERIES, NEW YORK.

8), by the same artist. Both compositions represent Pintoricchio at his best, the one resplendent in its completion, the other of unsurpassed delicacy and perhaps even more interesting to the

student of technique on account of its unfinished condition. The latter lacks its stippling of blue over the dark green underpainting of the Madonna's mantle, and a fuller modelling over the *terra verde* of the flesh tints. Each work is exquisite in its way, and the two, juxtaposed in the gallery, attracted much attention by their generous rivalry.

To represent Pintoricchio's great contemporary, Perugino, Mrs. R. H. Sayre of Princeton, New Jersey, sent a *Madonna and Angels* by a follower of the famous Umbrian. This work, albeit damaged by an unskilful restorer, gave an excellent idea of Perugin-esque art.

In the town of Foligno, not far from Perugia, another school grew up, due principally to the genius of Niccolò Liberatore of that city. By Niccolò the Fogg Museum possesses an important poly-

ptych. The art of Foligno, passing into the neighboring Marches, crossed with that of Venice and produced a charming, if unprogressive, local school. To illustrate this movement the Fogg

Museum owns an attractive *Madonna and Saints* by Bernardino di Mariotto of San Severino, and the Metropolitan Museum of New York, through the courtesy of the Cleveland Art Museum, loaned another *Madonna* by the gracious Lorenzo da San Severino. The latter painting belongs to the so-called Holden Collection, and for some time has been exhibited in New York.

Unfortunately no specimen could be got of the greatest of all Umbrians, Raphael, but the proximity of two excellent examples in Fenway Court made the lack less keenly felt. Indeed the connoisseur of Umbrian painting had ample material with which to enlarge his knowledge and cultivate his taste.

Turning finally to the schools of northern Italy and Venice, one found the latter more happily presented than the former.

The most important north Italian painting in the museum, a *Circumcision* by the Ferrarese master Cosimo Tura, belongs to the permanent collection. Mr. Morison loaned a characteristic *Marriage of Saint Catherine* (fig. 9), by the later master of Ferrara and Bologna, Francesco Francia. Francia was strongly influenced by Perugino, and by his warm personal friend Raphael, so Mr. Mori-

son's painting suggests Umbrian art as much as north Italian. Still another north Italian painter represented in the loan exhibit was Bartolommeo Veneto. By this master, a product of the Leonardesque school of Lombardy and that of Venice, Mrs. W. Scott Fitz of Boston loaned an attractive little *Saint Catherine*. Bartolommeo Veneto forms a good

transition to Venice. Of the works of the greatest of the Venetian painters, Giorgione, Titian, Tintoretto, and Veronese, no examples were available for the exhibition. Several excellent pieces by other Venetians were procured, however, which gave the observer no small acquaintance with the great color school of Italy. From the Ehrlich galleries came three attractive works. The most important was a *Portrait of a Girl* (fig. 10), by Paris Bordone,



FIG. 11. PORTRAIT OF A MAN, SCHOOL OF ALVISE VIVARINI. EHRLICH GALLERIES, NEW YORK.

close follower of Titian. Identification of the subject is not certain, but the lady may well be Titian's daughter Lavinia. In richness of tone and beauty of type this painting falls little short of the great master himself. Another of the Ehrlich paintings, a *Portrait of a Man* (fig. 11), reflects the art of one of the greatest Venetian portraitists, Antonello da Messina. It also bears a strong stylistic



resemblance to the work of Alvise Vivarini. The third Ehrich painting was a romantic *Landscape* in the style of Dosso Dossi, painter of Ferrara. It is best mentioned among the Venetian works, however, since it reflects so happily the important Venetian landscape art inaugurated by Giorgione.

As an excellent example of the *Sacra Conversazione*, or gathering of the Saints, so popular in the Venetian school, Prof. G. H. Palmer of Harvard loaned his fine painting by Polidoro Lanziani, another follower of Titian. It quite outshone in richness of color the *Holy Family* by the same artist in the museum collection. Yet another able Venetian piece was a small *Madonna*, by an unknown artist, loaned by Mr. Hervey Wetzel of Boston. On the whole the quality of the Venetian works is so high that one could not but forgive the absence of works

by any of the four archangels of the school

In short the results of the loan exhibition were so satisfactory that it is to be hoped that others will soon follow. The task of illustrating adequately the whole development of Italian painting is a well-nigh impossible one in this country, but the Fogg Museum achieved its fine result by the very magnitude of the task it set itself. Taken in connection with the collection at Fenway Court, happily opened to the public for a brief period almost immediately after the closing of the Fogg exhibit, it formed one of the greatest opportunities to study Italian painting ever afforded in this country. Yet what it did was but a fraction of what might be done could private collectors be persuaded more readily to relinquish, for a short time, their works of art.

Harvard University.



PILGRIMS TO THE TEMPLES IN CASHMERE.



FIG. 1. THE RUINS AT BHANIYAR.

## TEMPLES IN THE VALE OF CASHMERE

F. WARD DENYS

THIS SUBJECT is so unfamiliar the writer does not hesitate to say that, before his own visits to the Vale of Cashmere, he had no idea that there were any ruins of exceptional interest in that remote and beautiful part of the world.

Nor has he happened to meet any archaeologist who had, although he has met many in his search for information. Even in Cashmere itself the few who were interested knew comparatively little about the ruins they had seen and admired. There were however a few books in the Club Library in Srinagar that told something about them, but personal friends who had photographed or sketched them knew little more than the pictures showed.

But if there was a poverty of information in these sources, it was more than made up by the extravagant exuberance of the native imagination, which provides a host of fabulous tales. Some of these have been translated and published in English, and one small book shown the writer at Martand claimed that these particular ruins were several thousand years old.

This paucity of information is unfortunate, as any one can see from the photographs that the ruins are of great interest, and a few words in regard to some of the more important may help to show that they are worthy of far more thorough investigation than they have yet received.



Perhaps some time an expert may be sent to study them so that more light may be thrown upon them, but until something of this sort is done we must be content with what we have, and what the pictures show us.

That they are worthy of this interest the writer is fully convinced, because they easily hold their own when compared to the great and well known monuments and ruins of Europe, Asia, and Africa, most of which he has visited many times at leisure.

There are certain things and places like the ruins of Rome, Greece, and Egypt, the Taj Mahal, the view of the Hima-

layan giants from Darjeeling, the Yosemite, the Grand Canyon, Niagara Falls, and others that stand out prominently in one's memory, and in reviewing them the visit to Martand at sunrise takes a prominent place. But the mental pictures one forms of them, from the descriptions in the guide-books and else-

where, are far from definite, nor do they give the faintest promise of the delightful and interesting memories they leave behind.

So little were we prepared for what was in store for us, that when we passed Bhaniyar (fig. 1) on our way into Srinagar

we hardly more than glanced at the ruins, and yet they offer features of exceptional interest, but we were fully repaid for this omission some months later, when we were coming out of the valley. This it was easy to do, as the temples lie quite near the road, and are less than two miles from the village of Naushera.

Here we have one of the earliest examples of a temple that retains its original enclosure. This is in the form of a cloistered quadrangle about one hundred and fifty feet square, with a shrine and cella of unusually large and noble proportions, being thirteen and a half feet square in the enclosure, with walls nearly seven feet thick.



FIG. 2. TEMPLE CROWNING THE TAKHT-I-SULEIMAN.



FIG. 3. TEMPLE OF PANDRATHAN.

Unfortunately the more delicate carvings and ornamentations have been nearly obliterated by time, but the walls, which are pierced by a series of pedimented and trefoil arches, are in a wonderful state of preservation, and the impression made by the use of the trefoil, here and elsewhere in Cashmere, upon one accustomed to its use and significance in Christian decoration, is peculiar and indescribable, as it is so startlingly suggestive of the deep underlying unities that seem to pervade all religious thought and symbolism.

But if the temples of Bhaniyar did not hold our attention long when we were on our way in, the Takht-i-Suleiman (fig. 2) did, and that too from the moment we caught sight of it in the valley; nor did this prominent feature in the landscape

ever fail to delight us although we lived under its shadow for many months. This striking mountain—it is about six thousand two hundred and fifty feet above the level of the sea—rises like a splendid pyramid from the city of Srinagar to the height of over a thousand feet, and is crowned by one of the most picturesque and impressive temples in the entire valley, and the moment we saw it, in spite of our fatigue due to our two hundred miles' ride, we were refreshed at once.

This temple is one of the oldest in Cashmere, and although it has been rebuilt, perhaps more than once, it is, as the picture indicates, a very remarkable structure, on account of the stone work.

There is a good path from the hospital in the city all the way to the top, and it



is a favorite walk, not only on account of the temple, but because of the superb view it commands of the Dahl lake and the entire valley, which is like a flat oval about eighty miles long and thirty miles broad, surrounded by a colossal snow-clad mountain wall that rises in some instances to the height of over twenty-six thousand feet.



FIG. 4. COLONNADE OF THE SMALLER TEMPLE AT AVANTIPUR.

Of the temple itself much might be said, but let it suffice to say that it is constructed in horizontal courses without cement, and that it has a small dark circular inner shrine.

About three miles north of the Takht, and in the centre of what was once the old city of Srinagar, though very few traces of it now remain, is the extremely interesting temple of Pandrathan (fig. 3).

It stands in the midst of what was once a small pond—now dry—and is about eighteen feet square with a projecting portico on either side. It is richly decorated, and the domed roof is worthy of careful study, for the sculpture is so purely classical in design as to suggest a Greek or Roman origin, although it is said to have been erected between 913

and 921 A.D. by Meru, Prime Minister to King Partha.

Still farther up the river, and not far from the bank, lie the extensive temples of Avantipur (fig. 4) which until quite recently had been buried, but the excavations have already brought to light many remains of great interest, for it was here at his capital city that the famous King Avanti Varmma founded two temples

and dedicated them to Mahadeva some time between 858 and 883 A.D. At the present time a good idea of their size, and the quality of the work, can be formed from the gateways and the colonnades of the smaller of the two, and one can not help noting their resemblance in style to those at Martand; but perhaps the greatest interest will be felt in the elaborate carvings that enrich the semi-

plateau, that commands vast stretches of the valley with its silvery serpentine river, is an experience that can never be forgotten, especially if it is made in time to see the sun rise and stream through the eastern portal to bathe the rich interior with golden splendor.

As the smiling native custodian greets you, he hands you a copy of the native history and description of the ruins.



FIG. 5. THE GATE OF THE TEMPLE AT MARTAND SHOWING THE TREFOIL ARCH, THE CARVING, AND A PORTION OF THE CLOISTER THAT SURROUNDS THE QUADRANGLE.

detached pillars of the arched recesses, which are of a variegated and pleasing character.

But of all the temple ruins seen in Cashmere those at Martand (fig. 5) are easily the most impressive not only on account of their extent, but because of the great beauty of their wonderful situation.

The sail up the Jhelum to Islamabad, and the ride from there up to the lofty

In this the claim is made that the first structure was erected some four thousand years ago, while the English and other archaeologists place it between 360 and 383 A.D.; but however this may be, these are easily the most imposing, as well as the most beautiful, of all the ruins in Cashmere, and this is the only temple that has a choir and nave in addition to the cella or sanctuary. This



nave is about eighteen feet square, and the entire length of the structure is sixty-three feet. For the most part it is quite plain, but the two adjoining compartments have richly decorated panels and elaborately sculptured niches. It is difficult to determine the exact height, as the roof has been removed and lies in masses on the ground, but it is believed to have been about seventy-five feet.

A wide flight of steps approaches the western entrance, which is surmounted by a superb trefoiled arch, with chapels on either side, one of which is connected with the nave. The other side has equally impressive arches with closed doorways beneath. The quadrangle, which is pillared, is about two hundred and twenty by one hundred and forty-two feet and is decorated with the most elaborate carvings in Cashmere. There are eighty-four fluted columns with beautiful capitals, a number considered sacred

by the Hindoos, being a multiple of the signs of the zodiac and the days of the week.

This work is ascribed to the famous King Lalitaditya who reigned between 699 and 735 A.D. But probably that which will impress the average lover of the beautiful most will be the almost startling suggestiveness of Greek influence at its very best period, though how this influence came to this remote part of the world at a time when it was almost inaccessible, no records declare, but however it came it is a thousand pities that these beautiful gems of architecture should have been so terribly mutilated by fanatical Moslems, and yet even in their present state so impressive is their beauty that one admirer said, "they are easily the most interesting feature among a host of interesting features, that the Vale of Cashmere affords to delight the traveler."

Washington, D. C.

## LESSER KNOWN MASTERPIECES OF ITALIAN PAINTING

### II. A VIRGIN AND CHILD BY NEROCIO

Quintessential in his adherence to the indefinable spiritual attraction that pervades the art of Siena, Neroccio stands high with those fortunate enough to be open to an appeal of such sort. If the ability to give pleasure to the most experienced be a test of the great artist, the subject of this note meets it abundantly.

Neroccio di Bartolommeo, of the noble Sienese family of Landi, was born in the year 1447. Pupil of the vigorous and versatile Vecchietta, like him he produced works both in sculpture and in painting, his greater freedom in the former, due to a descended Donatello influence, being in contrast with a conscious effort to hold to earlier tradition in the latter.

Our illustration shows one of Neroccio's most charming creations, a Virgin and Child with music-making angels, accom-

panied by figures of Saints Jerome and Anthony of Padua. Painted on wood, on a gold ground, the picture is typically Sienese both in technique and conception. Fine in line and tender in feeling, Neroccio well deserves the tribute given him by our greatest critic of Italian art, Bernhard Berenson, who is the fortunate possessor, at I Tatti, near Florence, of the picture we are illustrating. Says Berenson, "Neroccio was Simone Martini come to life again. Simone's singing line, Simone's endlessly refined feeling for beauty, Simone's charm and grace, you lose but little of them in Neroccio's panels and you get, what to most of us counts more, ideals and emotions more akin to our own, with quicker suggestions of freshness and joy." (*Central Italian Painters*.)

DAN FELLOWS PLATT.



A VIRGIN AND CHILD BY NEROCIO.



*Ancient America at the Panama-California Exposition, San Diego*

For the first time in the history of expositions an entire building has been devoted to Ancient America. This is the California Building, the most imposing structure of the Panama-California Exposition at San Diego.

The achievements of the American aborigines in many directions are today receiving merited consideration on the part of students of the history of the useful arts as are also those which relate



THE PREHISTORIC SOAPSTONE WORKERS OF CALIFORNIA

Exposition at San Diego, which contains an instructive exhibit of the works of the American Aborigines collected by Dr. Edgar L. Hewett, Director of the School of American Archaeology.

An interesting feature is life sized groups of primitive stone and metal workers, of which the illustration is an example.

more directly to the realm of the aesthetic. Vast energy was expended by the more advanced tribes in developing the mineral resources of the continent from Alaska to Patagonia, and mines and quarries where the raw materials were obtained, at great cost of time and labor, are scattered throughout the length and breadth of the land.

With the view of presenting these varied activities effectively to the student public, the museums of the country, and especially the National Museum, are constructing life-size lay figure groups based on the knowledge derived from a study of the work of the historic tribes and on researches among the well preserved traces of prehistoric peoples. This group illustrates the mining and shaping of soapstone as carried on by the ancient inhabitants of Santa Catalina Island, off the coast of southern California, and was prepared at the National Museum for the Panama-California Exposition at San Diego, California.

Steatite, called also soapstone, is a soft talcose rock which occurs in massive bodies in association with other metamorphic rocks. It was much used by the Indians of northern America for utensils because of its resistance to the destructive action of fire. Countless ancient quarries of this material occur along the Appalachian ranges from Maine to Georgia and the pittings are surrounded by

deposits of refuse of the shaping work which include many rude vessels broken under the strokes of the stone picks and chisels with which the work was done. The industry was conducted on a grand scale on the Santa Barbara Islands, and so fresh and complete are the traces of the work that the imagination was not put to a severe test in making the restoration here illustrated. The most remarkable product of these quarries are the large globular ollas or cooking pots of the coast tribes, many of which, well finished and symmetrical in outline, are now preserved in our Museum collections.

In this group the man with the stone pick cuts out the roundish mass of soapstone from the solid wall of rock-in-place while the woman with an equally rude implement roughs out the globular pot. Naturally, the operation was extremely tedious and the extent of the work done and the wide distribution of the product serve to illustrate the remarkable industry and enterprise of the aborigines.

W. H. H.

*The Suppression of Vandalism in China*

In its recent report, the China Monuments Society announces that considerable progress has been made in suppressing vandalism in China, as a result of the coöperation of the Archaeological Institute of America and other institutions. After giving an interesting account of the work of the Society since its formation in 1908, Frederick McCormick, the secretary, says:

In 1914 more than fifty universities, museums, and other organizations in the United States came to its support, and together with it memorialized President Yuan Shih-k'ai, urging protection and preservation of China's monuments for the welfare of China's people and of man-

kind. As a result the President and the government of China promulgated mandates and issued instructions forbidding the sale of monuments and antiquities to foreigners with a view to suppression of the vandal traffic. And the formulation of protective laws after the example of those of Western countries was undertaken. As a consummation of the first efforts of The China Monuments Society, the United States in agreement with the government of the Republic of China, November 1914, allocated gold, \$100,000 of the Boxer Indemnity remitted to China by the United States to be used in preparation of museum quarters in Peking, and the collection there of national antiquities and art for preservation and study.



*The College Art Association of America*

With this issue ART AND ARCHAEOLOGY becomes, for one year at least, the official organ of the College Art Association of America, in accordance with the resolution adopted at the Buffalo meeting. As a partial return for the membership fee in the Association each member will regularly receive the numbers of the magazine. All teachers of Art in Colleges and Universities of recognized standing and all who are engaged in educational work in Museums and Art Galleries of recognized standing may become members of the Association by sending the amount of annual dues (\$3.00) to the secretary, Professor William M. Hekking, whose address during the summer will be Columbia, Missouri.

JOHN PICKARD,  
President of the College Art  
Association of America.

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*Summer Session of the School of American Archaeology*

The School of American Archaeology  
will coöperate with the Carnegie Endow-  
ment for International Peace, the San  
Diego State Normal School and the Mon-  
tessori Institute in a joint summer session,  
July 5-August 13, 1915, under the aus-

pices of the Panama-California Exposi-  
tion at San Diego. Dr. Edgar L. Hewett,  
Dean of the School, will give courses in  
American Archaeology and Culture His-  
tory, and John P. Harrington in Anthro-  
pology.

## BOOK CRITIQUES

MEDIEVAL ARCHITECTURE: Its Origins  
and Development, with lists of mon-  
uments and bibliographies. By Ar-  
thur Kingsley Porter. Volume I.  
The Origins. Volume II. Nor-  
mandy and the Ile de France. New  
Haven: Yale University Press.

Mr. A. Kingsley Porter's *Medieval Archi-  
tecture* ranks among the foremost works  
in English which deal with this field.  
It is an especially good book for the gen-  
eral reader because of the historical set-  
ting which is given to each chapter and  
the generally readable character of the  
entire work even when purely structural  
matters are dealt with. The illustrations,  
too, are excellent and numerous and in  
most cases well chosen. The first chap-  
ter on pre-mediaeval architecture is  
rather superficial and it is difficult to  
trace in it that close relationship which  
the author wishes to show between medi-  
aeval architecture and its precursors.  
Moreover the omission of a discussion of  
the monuments from the text proper by  
placing them at the ends of the chapters,  
is open to question since the buildings  
are thus deprived to a certain extent of  
their setting. For the advanced student  
these accounts of the churches have much  
advantage in their present place and, to-  
gether with the exceptionally fine bibli-  
ographies, make the book almost essential  
to any thorough student of the period.  
Since writing these two volumes, Mr. Por-  
ter has written an unusually thoughtful  
book on *The Construction of Lombard and  
Gothic Vaults*. If he were now to revise  
his larger work in the light of this and of  
other of his recent studies, there would  
undoubtedly be a clearer exposition of  
the Transitional Period than that which  
the book contains. CLARENCE WARD.

Rutgers College.

GREEK REFINEMENTS: STUDIES IN TEM-  
PERAMENTAL ARCHITECTURE. By  
William Henry Goodyear. Pp. xx,  
+ 227, figs. 118. The Yale Uni-  
versity Press.

This is a very important book for every  
student of the aesthetics of architecture.  
Professor Goodyear has already written  
several articles on the curvatures in  
Greek and Roman temples, and also on  
mediaeval asymmetries and refinements.  
He was the first to point out the exist-  
ence of horizontal curvatures in Roman  
temples such as the Maison Carrée,  
and for more than twenty-five years  
he has specialized in this field. So it  
is well that the results of his investiga-  
tions have been published in a single  
volume, even though there is some repe-  
tition of what has already appeared in  
articles. The first five chapters deal  
with horizontal curvatures, construc-  
tive inclinations, and entasis. The the-  
ory is discredited that the Greek curva-  
ture was intended to correct sagging  
effects in horizontal lines, and the con-  
clusion is reached that the Greek archi-  
tects were inspired by an aesthetic  
preference for the curve. Chapters VI  
and VII deal in a very original way with  
asymmetric dimensions in Greek tem-  
ples and their optical effect. There  
are some inaccuracies and confusions  
in the book, and some aspects of Greek  
architecture, such as the early Ionic,  
are neglected; but every one interested  
in the significance of Greek Refinements  
should read Professor Goodyear's vol-  
ume.

The book is beautifully illustrated,  
and there are many full-page plates;  
and there is a useful bibliography and  
index.

D. M. R.



## ART AND ARCHAEOLOGY

Has completed its first volume and has already won for itself an enviable place in the magazine world. Started by the Archaeological Institute primarily for its lay members, it has already gained a considerable circle of admiring and appreciative readers in the entire field of art and letters.

The purpose of ART AND ARCHAEOLOGY is to give people, in an interesting and attractive way, accurate information, pleasingly presented, in the wide realm embraced by its name. This information is imparted by valuable reading matter, illustrated by beautiful pictures reproduced in half-tone, photogravure or color work.

The wide range of its activities is shown by the fact that during the first year ART AND ARCHAEOLOGY brought to its readers one four-color frontispiece and 184 beautiful and unique pictures reproduced in half-tone to illustrate 32 articles and 34 important items in Current Notes and News. The reader has visited excavations in Egypt, Crete, and Palestine, and the diggings of the Kaiser in Corfu; has been with Demosthenes on the Pnyx at Athens; has surveyed the beautiful site of the American Academy in Rome; has made a journey to Horace's Sabine Farm, and Fliny's Villa "Comedy" on Lake Como; has become acquainted with Byzantine and Moorish Art in Constantinople and Spain; has beheld the Rheims Cathedral and various wonder works of art in Florence; has surveyed the richness of Aboriginal American Art as produced long centuries ago, before the advent of the European; and has observed our latest artistic development in such modern Masterpieces of Classical Art as are to be found in Washington, Chicago, Richmond and other cities.

Yet the forthcoming numbers of the magazine will surpass any that have gone before. Professor Holmes will continue his series of "Masterpieces of Aboriginal American Art" with abundant illustrations. Dan Fellows Platt will present "Lesser Known Masterpieces of Italian Painting," and the "Modern Masterpieces of Classical Architecture" will appear from month to month with a companion series in the field of sculpture. Garrett Chatfield Pier will acquaint us with interesting monuments of Chinese and Japanese Art. Edgar James Banks will discuss, with illustrations, the "Seven Wonders of the Ancient World," and single articles with attractive pictures too numerous to mention, are already arranged for.

What we have gained in excellence and in circulation has been due to the coöperation of our steadily enlarging ART AND ARCHAEOLOGY family. We wish to cultivate this sense of proprietorship in all our readers, and we look to them primarily for the names and addresses of others who should be added to our number as a member of the Institute or as a subscriber. If you are not already one of us, we shall be pleased to enroll you as a subscriber.

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*The Octagon, Washington, D. C.*

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## Monte Carlo's Road of Triumph

The Road of Triumph sees no conqueror now

Save Summer's sun that slays the buds of spring,

Or the victorious autumn winds that fling

A russet banner on the chestnut bough;

No pastured victim bleeds to pay the bow,

No festive altar smokes, no plaudits ring;

While unaffrayed the shepherd lad may bring

His flock to feed on Monte Cavo's brow.

© He who came with all the pomp of Rome

To smooth this pavement with exultant tread

And shake the silence with applausive breath;

Go! foxes use your highway to their home.

The dust of ages drifts across your head,

And all your choruses are stopped in death.

George Meason Whicher.

[The Road of Triumph leads up to the Summit of Monte Cavo in the Alban Mountains—an imposing feature of the Roman Campagna. See fig. 1 and pp. 39, 40.]





Anderson.

THE ROMAN CAMPAGNA. THE TOMB OF M. PLAUTIUS WHERE THE ROAD TO TIVOLI CROSSES THE ANIO RIVER.

# ART AND ARCHAEOLOGY

VOLUME II

SEPTEMBER 1915

NUMBER 2



Photograph by the Author.

ROCCA DI PAPA.

## THE ROMAN CAMPAGNA

RALPH VAN DEMAN MAGOFFIN

The Roman Campagna, speaking strictly from the modern point of view, is the low land about Rome which reaches to the sea on the west, to the Sabatine hills and Mt. Soracte on the north, to the Sabine hills on the east, and to the Volscian mountains on the south. A circle with a fifteen-mile radius, having Rome in its center, would embrace it all except on the south, where the upper part of the Liris valley and of the Pontine marsh on either side of the Volscians should be included. Not many thousand years ago this campagna was a gulf or bay of the Mediterranean, and it consists of the deposit which centuries of rain brought down from the mountains, and spread out on the bed of the gulf, like a gradual fill. Then volcanic eruptions in the north and south not only threw up the Sabatine range of hills and the double concentric circle of the Alban hills, but also showered twenty to thirty feet of volcanic ashes over this region. The sea retreated before this newly made land, which must have been fairly level except for occasional hummocks and hills where swirls of wind had caused the ashes to fall in heaps. But the Tiber river at once began to plow its way to the sea through the middle of this new land, and hundreds of rivulets from springs and mountain lakes





FIG. 1. THE MAGNIFICENT RUINS OF THE CLAUDIAN AQUEDUCT. IN THE BACKGROUND ARE THE ALBAN HILLS, WITH MONS ALBANUS (OR MONTE CAVO) AT THE RIGHT.

Anderson.

slowly furrowed its flat surface into the gashed and undulating expanse which it shows at the present time. One-third of the Campagna, that part which lies north of the Tiber, although belonging

Latium, to which we give our attention in this paper.

Rome is of course the best place from which to make short tours into the Campagna. There are three such trips, each



Anderson.

FIG. 2. ONE OF THE LONELY SENTINELS OF THE CAMPAGNA.

geographically to the rest, in early times was politically attached to Etruria. That is why, when the Roman Campagna is mentioned, we still think of that land which lies east and south of the Tiber. This corresponds in general to ancient

of which can be covered in a not too brisk walk of half a day. One may go north from the city along the Via Flaminia and walk up the Tiber valley to the Anio, the tributary that comes down from the mountains past Tivoli. Then



he should climb the hill as near as is allowed to the modern fort which occupies the site of the ancient Antemnae, and get the view of plain and Tiber valley to the arc of mountains that sweep round the horizon. He may return to Rome by the famous old Via Salaria. Or one may stroll out with the Sunday afternoon crowd from the Porta Pia



*Photograph by the author.*

FIG. 3. ANCIENT OLIVES ON THE LOWER SLOPES OF THE SABINE MOUNTAINS.

did tomb of Cécilia Metella. From any point along the Appian way beyond this tomb, for the ancient Roman road runs high here along the top of a ridge of lava which ran down from the Alban hills a millenium or more before our era, one gets a view that is never forgotten. To the west is a sweep of level brown waste, interspersed with clumps of green,

which reaches to the silver gray of the sea. To the east there is another broad expanse over which here and there stride the arches of an aqueduct (fig. 1), out of which project mysterious looking isolated towers, (fig. 2) and over which seems to brood a lonely silence. But the loneliness is all but forgotten as the eye runs along the range of the Sabines and notes the

many towns that cap the hilltops or nestle in their whiteness against the purple slopes of the mountains, below which spread the groves of olive trees mantling the lower background (fig. 3) with their strange green beauty. But it is the view to the south that beckons one to immediate acquaintance. The line of the Appian way which runs up into the hills and disappears below the dome of Castel Gandolfo, the bold terraced front of Frascati beyond which runs the long line of the Tus-

of Castrimoenium, and where now stands the more modern town of Marino. This was long a town belonging to the Colonna, and was the home of Marc Antonio Colonna who won the battle of Lepanto against the Turks in 1571. Below the town there is part of a mediaeval bridge that spanned the valley, one ivy covered tower of which still stands in picturesque dilapidation (fig. 4). Somewhere up this Ferentina valley, in times when Rome was only one of a league of thirty cities, the



*Photograph by the author.*

FIG. 4. MEDIAEVAL BRIDGE TOWER IN THE FERENTINA VALLEY.

culum ridge, the dark valley up which goes the Via Latina, the vine covered slopes that carry the eye on up through the town of Rocca di Papa to the tree covered summit of the dominant Monte Cavo, all invite the beholder to share their secrets.

A splendid approach to the Alban hills is up the Ferentina valley past the quarries of peperino—a breccia building stone of volcanic origin—below the steep rock on which was situated the ancient town

delegates of the Latin league used to meet. No better place could have been found than in a sort of natural amphitheatre the back of which is formed by part of the eastern bank of the Alban lake. From the ridge along the lake one can look across the garden and monastery of Palazzuola, built in part over an ancient reservoir which some say belonged to Alba Longa, over the dark motionless surface of the deep lying lake, over Castel Gandolfo (fig. 5) and far away to the



silver line of the sea. When one turns to look the other way there is just as fine a view. Monte Cavo towers to the right, the Tusculum ridge fills the background directly in front, and off to the left the eye is carried beyond Frascati over the Campagna to the distant Sabines. But the central foreground is filled by the town of Rocca di Papa, which clammers in attractive disorder up the steep side of a detached part of the Alban mount.

which covers such an extent of ground below the city and from which there is so fine a view towards Rome. But the most instructive and entertaining trip of all is to take an early train out past the Alban hills to the station in the valley nearest to the modern town of Palestrina, the ancient Praeneste.

From the Via Casilina, some three miles from the town, Palestrina looks like a white spot against its mountain, Monte



FIG. 5. THE MONASTERY GARDEN OF PALAZZUOLA AND THE ALBAN LAKE.  
*Photograph by the author.*

It is difficult to decide which of the many longer trips from Rome lend themselves best to illustration. One may now go in the trolley to visit Ostia, which has been called of late the second Pompeii and see Rome's river port. One should never fail to take the trip by train or by motor to Tivoli, not only for the ride through the Campagna, and for the town itself, but also to visit the ruins of the magnificent villa of Hadrian

Glicestro, insignificant almost against its background of bare precipitous hills. But one remembers that there was located the famous temple of the goddess Fortuna, a spot in Italy as famed as Delphi in Greece. As one draws nearer, the size and location of the place begin to have their effect. But when one climbs up through the town on up to the summit of the mountain where the ancient citadel stood, and from there

looks out over the finest view that central Italy affords, then one understands why Rome was so long jealous of Praeneste, and why Praeneste held so prominent a place in Latin affairs. Behind to the east, beyond the lower Sabines, rise the Apennines, to the south runs the Liris valley towards Capua and Naples, before one are the Volscian mountains and

imagination. The Campagna spreads out lavishly before one its mysterious beauty. The dome of St. Peter's twenty-five miles away gives the location of Rome, and the height of Soracte and the mountains above Lago di Bracciano, forty miles away, show the northern boundary line of the Campagna. Then looking more closely at the near-by plain,



FIG. 6. SIX MILES BELOW PALESTRINA TOWARD ROME THE CLAUDIAN AND ANIO NOVUS AQUEDUCTS SIDE BY SIDE BRIDGE THE VALLEYS AND TUNNEL THE RIDGES.  
*Photograph by the author.*

the Alban hills, with a valley between them that gives a view of the sea. Just below one the mountain dips steeply to the plain, and the descending Cyclopean walls broken by an occasional mediaeval tower gate make stronger the realization of the town's impregnability to attack. But it is the view below and beyond the town to the right that carries away the

one sees that a series of ridges radiates from Monte Glicestro like the spread out fingers of one's two hands laid flat and close together. Out at the end of several of these long fingers of lava or tufa, hard enough to resist the torrents which rushed down from the mountains into the plain, are little towns, which do not rise above the general level of the



Campagna, but which, when seen from below the end of the ridge, show the natural strength of their positions. Further down in the Campagna near Rome can be seen, as is the case in fig. 6 where the two aqueducts, the Claudia and the Anio Novus, run side by side, bridging the valley and tunneling the



*Photograph by the author.*

FIG. 7. A MEMBER OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES IN ROME IS STANDING UPON THE DEPOSIT IN THE CHANNEL OF THE UPPER AQUEDUCT, THE ANIO NOVUS.

feature of the landscape is the aqueducts. But up among these parallel ridges these same aqueducts are sometimes very hard to find. Occasionally, when the level happens to be right, one

ridges. These two particular aqueducts are not to be found on the further side of the ridge shown in the photograph, but dip below the surface of the ground and do not again appear until seven



*Anderson.*

FIG. 8. PORTA PRAENESTINA, OR PORTA MAGGIORE. THE DOUBLE GATE IS NOTHING MORE THAN TWO ARCHES OF THE SERIES WHICH CARRIED THREE AQUEDUCTS INTO ROME.





FIG. 1. THE PONT DU GARD. [FROM UP STREAM, LEFT BANK.]

miles away, where below Frascati they emerge and mounting one above the other run upon a single row of arches into Rome. The Claudian aqueduct was built of stone, and its specus or channel is about five feet in height. The upper aqueduct, the Anio Novus, was built of faced concrete, and the greater part of it has been broken down. Fig. 7 shows clearly the channel of the lower aqueduct, its cap stone, and the filling between it and the floor of the upper channel. The ten or twelve inches of material above the floor of the upper specus is the deposit of limestone which the water left as it ran its course into the city.

After a visit to Praeneste there is no better way to return to Rome than to take all day and walk. One comes along the Via Praenestina, and treads long miles of that splendid lava road which now no one but the shepherd or the archaeologist ever sees. Hour after hour the silence of the Campagna makes

more vivid the mind's picture of the Roman legion, the praetor's staff, or the imperial messengers, who hurried centuries ago along the road. The steep and frequent grades teach that the Campagna, although it appears level, is the most unlevel tract of land through which one ever walked. The bare waste of country by its very dreariness brings to mind the times before the Second Punic War, when all the land was dotted with farms and under cultivation. And if, when after leaving the site of ancient Gabii, one will cut across country to the Claudian aqueduct and follow its increasingly higher and more majestic arches, and then go along the stretch of city wall which the Marcian aqueduct with its filled in arches has furnished, until he comes to the Baker's tomb outside the great double gate of Porta Maggiore, he can enter Rome with the certainty that the Roman Campagna will never again be a stranger to his waking thoughts.

*The Johns Hopkins University.*

## THE PONT DU GARD

FRANK BIGELOW TARBELL

The traveler in the countries around the Mediterranean sees in many places lines of lofty arches, now generally broken and useless, but serving once to carry water to cities of the ancient Roman Empire. The most familiar examples of this class of monuments are those near Rome itself, but there are others equally notable in Spain and Gaul, Algiers and Turkey. Among them all there is none more imposing than one in Southern France known as the Pont du Gard. This crosses the valley of the river Gard or Gardon about eight miles northeast of Nîmes. The mas-

sive masonry, in which some of the stone blocks are ten feet long, the great span of the arches, and the loftiness of the three-storied structure combine to produce a profound impression of grandeur.

Magnificent though this monument is, its designer probably thought little about aesthetic effect. This lonely valley was no place for a show-piece. The structure which so compels our admiration was planned in subordination to engineering requirements. The engineer's task was to lay out the entire course of an aqueduct which was to bring water to the flourishing Roman



colony of Nemausus, now Nîmes, from springs ten miles away. It was a matter of common knowledge then, as now, that water "seeks its level," and Roman engineers occasionally carried water across a valley in a U-shaped pipe or "inverted siphon." This was done, for example, at Lyons. But the method was expensive, as cast iron was not known and there was therefore no cheap material, capable of withstanding great pressure, available for a water-pipe. Consequently the usual practice was to lay out the course of a conduit in such a way as to secure a slight, continuous fall from start to finish. That was the method followed in the present instance. Naturally the conduit could not follow a straight line, but had to wind about according to the lie of the land. In part it could be constructed along the surface of the ground. But here and there hills had to be tunneled, and here and there valleys had to be bridged by means of arches. The most formidable valley encountered by the aqueduct under consideration was that of the river Vardo, the modern Gardon. The Pont du Gard is a structure for carrying across this valley at the requisite height a section of a long aqueduct.

From the practical point of view, then, the important thing is the water-channel, which runs above the uppermost tier of arches. The walls of this channel, unlike the masonry below, are constructed of concrete of the usual Roman sort (i. e., broken stones and mortar), with an outer facing of small, rectangular stones. On the inside the channel is lined with a water-proof cement, some three inches thick, more or less. The clear width of the channel was originally more than four feet, but this width was gradually narrowed by an accumulation of carbonate of lime

deposited by the water upon the walls. The deposit varies from six inches to a foot in thickness, and is so hard that it might be used, and is said to have been used, for building stone. As for the height of the channel, an ordinary man may without stooping walk through it beneath the horizontal covering-stones. To judge by the limestone deposit, the channel was not nearly filled with water, but, even so, it must have carried a copious stream. Anything like an exact estimate of the volume of water delivered at Nîmes is out of the question.

The Pont du Gard exhibits some remarkable features of design. The arches of the lowest story, and likewise of the second, are of three different widths, and the widest arch is not in the middle. Why is this? A little study of the site reveals the answer. The architect was not destitute of regard for symmetry but he has subordinated this to practical considerations. The channel within which the river ordinarily flows determines the width (78 feet) of the principal arch. Another fixed point is given by the right or southern bank of the wider channel over which the river spreads in seasons of flood. If a pier is set there, the space between it and the principal arch is most conveniently bridged by three arches, each having a span of 62 feet. For the southernmost arch of the lowest story a span of 50 feet is determined by the rising ground. The second story corresponds in the width of its arches with the lowest story, so far as the latter goes, but has to be extended in each direction. And here the architect shows his feeling for symmetry, for, though not constrained so to do, he has placed on the left of the widest arch three of uniform span, to match the three on the right.

Again, as the arches all have the semi-circular form usual in Roman work and as the crowns of those on the same story must be at a uniform or nearly uniform level, it follows that the piers from which they spring must be carried up to unequal heights. This fact is clearly marked by the impost mouldings, the cornice-like projections at the top of the piers. Finally, an interesting little adjustment may be observed in the uppermost story. The arches there are of uniform width, and at first glance one would say that the short piers were set without regard to the structure below. On closer examination, however, it is apparent that, except at one point—viz., at the left of the widest arch—a pier of the third story comes over the middle of a pier of the second story. In order to make this possible above the 50-foot arches the piers of the third story are there made a little narrower than elsewhere. Thus in all

parts of the Pont du Gard we discover an unflinching acceptance of the design imposed or suggested by the configuration of the valley, but with such degree of symmetry as could be secured without sacrifice.

About the architect himself we know nothing. He may have been the engineer who laid out the general course of the aqueduct; at all events, his work was subordinate to that of the engineer. Even his date cannot be fixed with precision. The conjecture, often advanced as a certainty, that the project for this aqueduct was initiated by Marcus Agrippa on the occasion of his visit to Gaul in 19 B.C., is possible enough, but is not supported by any direct evidence. In any case, the costs of construction were probably borne in large part or entirely by the community benefited.

*The University of Chicago.*



*Photograph by R. V. D. Magoffin.*

FIG. 2. THE PONT DU GARD. [FROM UP STREAM, RIGHT BANK.]



## THE ALBERTINA—VIENNA'S REPOSITORY OF PRICELESS TREASURES

ANNA LOUISE WANGEMAN

When in the month of December, 1913, Archduke Frederick, reputed to be the wealthiest member of the House of Hapsburg, formally announced his intention of erecting for the treasures of the Albertina a museum to be presented to the city of Vienna, a chorus of rejoicing went up from all the lovers of art, not only of Austria, but of the entire world. A handsome and much-needed Christmas gift it was that was laid at the feet of the beautiful Austrian capital, all the more important because up to the present day the initiated only have caught glimpses of these gems of graphic art in their present abode, while the laity passed by the un-



FIG. 1. PALACE OF ARCHDUKE FREDERICK, VIENNA.

interesting looking monastery of the Augustines with only a hazy idea—if indeed any at all—of what unbounded wealth lay heaped up in hundreds of portfolios behind those sombre walls.

The present day visitor to Vienna in seeking admission to the Albertina (fig. 1), finds that he must ascend a bastion called the Albrechtsrampe, upon which is built the palace of Archduke Frederick. Upon entering the court of this residence, the ducal porter directs you to a certain door at the rear that leads to a narrow, somewhat mysterious looking, stairway.

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Arriving on the second floor you find you have entered the adjoining building of the Augustine monastery, with its low ceilings and small windows. These primitive, rather uninviting quarters, reminding you of a long dormitory, have housed this collection of invaluable drawings, engravings and etchings of the world's greatest artists for more than forty years.

Scholars, connoisseurs and students have sat here pouring over these intimate products of master hands. Only the true lover of the graphic arts knows the thrill of handling a pencil or pen-and-ink drawing done by a Rembrandt, a Rubens, a Raphael, or a Michel Angelo. For it is in just

such work as this that an artist reveals what ideas have taken flight nurtured by the tender fancies of his soul or hidden in the secret recesses of his heart. At a picture gallery the masters are on dress-parade—if one may call it so—but when you come to examine their sketches, you feel as if you had been allowed a glimpse behind the scenes. In their graphic productions, great artists reveal to you their mode of work. The many corrections in a Rembrandt pencil or pen drawing, for instance, show not only his style of line, but also, how

much he must have thought about and around his subject until he got it into shape; it is like a characteristic handwriting. The artists' whimsical imperfections, their apparent feeling the way, their jovial fancies and many caprices seem like personal remarks written in the margins of their chef d'oeuvres. It is this delightfully intimate art that brings the great artists nearer to us and helps us to appreciate more clearly the foundations upon which their masterpieces have been built. It has often been said that it is far more difficult to prove the genuineness of a drawing than that of a painting.

The collecting of graphic productions has been a favorite occupation of art lovers ever since the second half of the sixteenth century, when it was much in vogue at the Court of Rome. Naturally enough from this time

on, date the first attempts at falsifying sketches and prints, and even at that remote period connoisseurs were obliged to be on their guard. One of the most ardent collectors in the art-world of his time, was Duke Albert of Saxony and Teschen (fig. 2) who laid the foundation of this famous collection in Vienna, which was named for

him. Duke Albert was the son of Frederick August, Elector of Saxony, and during the Seven Years' War is said to have served with honors in the Imperial Army. Handsome in appearance and exquisite in manner, he made his bow at Court in Vienna, quickly gaining favor in the eyes of the shrewd Empress Maria Theresa. In 1766, at twenty-eight years of age, this

charming prince married Marie Christine, the eldest (fig. 3) and favorite daughter of the Empress. It was an ideal marriage even for those days, when marriages at court were made by arrangement of the heads of State, rather than by personal preference of the contracting parties.

Marie Christine shared her young husband's tastes. Together they traveled through Italy, stopping for a sojourn in Rome—the old romantic Rome of the eighteenth cen-



FIG. 2. DUKE ALBERT OF SAXONY AND TESCHEN. COPIED FROM AN ENGRAVING AT THE ALBERTINA.

tury—receiving statesmen, scientists and artists at their soirées at the Villa Albania. Later, in Naples and Pompeii, the king invited Duke Albert to study and examine his collections whenever he chose. But it was not until this interesting couple reached Venice that Albert began to collect the first beginnings of the present collection. A few





FIG. 3. PRINCESS MARIA CHRISTINA.

contemporary engravings, then in his Venice, with a commission to collect old possession, seem to have awakened a desire in him to own more. In 1774 he the Archduke himself chanced upon a charged Count Jacques Durazzo, then in very comprehensive series of engravings



FIG. 4. CANOVA'S TOMB OF MARIA CHRISTINA IN THE CHURCH OF ST. AUGUSTINE, VIENNA.



of all the Italian schools and purchased them. A decided change occurred in Duke Albert's life when, in 1780, he was appointed Governor of the Netherlands. For ten years he and Marie Christine lived in Brussels. From this period dates the foundation of his collection of Flemish and Dutch drawings, engravings and etchings, that of the Albertina of today being, of its kind, second only to the collection of graphic arts in Amsterdam. These together with the famous Dürer prints and drawings are the boast of the Albertina and have for years attracted scholars and students from all quarters of the art world.

During this sojourn in Northern Europe, Albert visited Paris, and later took a long journey through Germany. The varied fortunes of war and subsequent changes in politics must have been rather distasteful to him in his position of Governor, for in spite of Albert's record for distinguished service in the Seven Years' War, it is hard to believe that he was ever much of a soldier at heart. He was a thinker rather than a man of action and it is easy to imagine him seeking solace in books when political issues in affairs of state were most distressing. His return to Vienna in 1794 found him homeless until, in the following year the Emperor gave him the palace on the Albrechtsrampe. A severe blow to Duke Albert, worse to him than any disaster in the affairs of state, was the news of the wreck of a ship which in 1792 was enroute with a large part of his magnificent collection from Belgium to Hamburg. His friends in the Netherlands did what they could to help him replace the treasures lost at sea, including fine porcelains, statues, reliefs, Boul-furniture, and books and copper plates, but much that was priceless was gone forever. In the

following year, his devoted wife made him a present of a part of Prince Charles de Ligne's collection. The unsettled conditions in Europe at this time forced many wealthy connoisseurs to dispose of their collections under the hammer, and these sales were taken advantage of by the ducal couple. Once more settled in Vienna, Archduke Albert and Marie Christine established a small art-world of their own, and their palace was soon the mecca of well-known scholars and art patrons. During the last twenty-six years of his life, Albert personally superintended the classifying and arranging of his treasures, frequently conferring with the celebrated Adam Bartsch, the great authority on engravings and prints.

In 1798 Marie Christine died, much lamented by all who had come under the spell of her beauty and charming personality. Her remains were buried in the Church of St. Augustine, directly adjoining the monastery. There the Duke ordered Canova to erect a tomb which is to this day visited by all travelers to Vienna (fig. 4). This tomb is of white marble, pyramidal in shape. On its façade a medallion with a relief of Marie Christine's head en profile is held aloft by an angel, while below this is the apparently open entrance to the tomb. A procession of beautiful allegorical figures, typifying Marie Christine's many deeds of charity, seem to be following her to the grave. These figures have been much admired for their fine modeling and graceful draperies.

The Archduke survived his wife for almost a quarter of a century, and never failed to devote several hours daily to his collection. The records show that he spent over 1,265,000 guilders, or about \$490,000, a fabulous sum in those days, on his collection, and consequently exposed

himself to the severe criticism of the people. Vienna was in a state of constant political uneasiness until 1813, and men's minds were so absorbed in affairs of state that they had little sympathy for the idealist. The story goes that one evening the old Duke was found sitting before an open grate fire, using the tongs in burning up old accounts. Upon being asked why he was doing this, he replied that he would show them, meaning his critics, that his expenditures were none of their affairs. In reality, Albert's great wealth was not impaired by these extravagances. As a matter of fact, he built a system of water works for the city, showing his public spirit.

Every succeeding year found this passionate old collector more of a recluse, and in 1822 he passed away. Being left childless, he had decided before his death to appoint as his heir

Archduke Charles, who, though he was a war lord, appreciated the wonderful collection left him. It is said he made great sacrifices in order to maintain and enlarge the Albertina, in memory of its founder and for the advancement of the fine arts. Besides, he ordered that this collection be opened to the public. After his death, the Albertina passed into the hands of Archduke Al-

brecht and from him descended to Archduke Frederick (fig. 5). Since the year 1873, the Albertina has been in its present shape. There are forty-four cabinets containing the many rectangular box-shaped portfolios in which the sketches, engravings and etchings are stored. Among them are 140 genuine samples of Dürer's work alone. These, as well as other originals have been copied, and are

at the disposal of the general public, while of recent years only scholars and art-students have been allowed to handle the originals. In the course of time the fine old library has been added to until there are now over 40,000 volumes at the Albertina, some of them rare incubula.

To those who have been frequent visitors at the Albertina in its present quarters it may be a matter of regret to hear that the old Augustine monastery is to be

torn down. Leaving reasons of sentiment and association aside, however, it is a matter of rejoicing that the farsighted Archduke Frederick intends putting up a modern building which will not only make the collection more accessible to the public, but will place the treasures of the Albertina in a museum worthy of its international importance.

New York.



FIG. 5. ARCHDUKE FREDERIC OF AUSTRIA.



## TAYLOR HALL: THE NEW ART BUILDING AT VASSAR COLLEGE

ELIZABETH HAZELTON HAIGHT

Founder's Day at Vassar College was marked this year by a notable event, for on May 7, Taylor Hall, the new art building, was formally dedicated and opened. This rarely beautiful col-

Dr. James Monroe Taylor, President Emeritus of Vassar.

The hall is warm in coloring from its combination of soft brown granite and Indiana limestone; is satisfying as well



*Photograph by George B. Shattuck.*

FIG. 1. TAYLOR HALL AT VASSAR COLLEGE. THE SOUTH WING.

legiate Gothic building is the gift of Mr. and Mrs. Charles M. Pratt of Brooklyn and commemorates the distinguished work for liberal education carried on for twenty-seven years by

in the beautiful lines of the tall entrance-tower and the long southern wing. And the eye is detained constantly by the fine decorative sculpture: the figures of artists, the mocking gargoyles, the

seals of nations, Athens' owl and Rome's wolf on either side of the great entrance gate. Within, restful harmony is the impression produced by the ash-brown

picture galleries, the marble floors, the leaded windows, the varied panelling of the ceilings. One delightful feature for educational work is the great lecture



*Photograph by George B. Shattuck.*

FIG. 2. THE CENTRAL HALL OF TAYLOR HALL, VASSAR COLLEGE.

woodwork, the soft neutral browns of room with its slanting floor, lantern, the rough walls in the halls of casts, easily darkened windows, and seats the dull gold Japanese grass-cloth, and equipped with tiny electric lights for the silk tapestry on the walls of the note-taking. Mr. and Mrs. Pratt in



giving their personal attention to the exhibitions of paintings representing finish of every detail in the building contemporary American work and of helped perfect their beautiful gift. engravings by Nanteuil and Timothy



*Photograph by George B. Shattuck.*

FIG. 3. THE ENTRANCE TOWER OF TAYLOR HALL, VASSAR COLLEGE.

The ceremonics of dedication were marked by speeches by Mr. Collens representing the architects (Allen and Collens of Boston), Mr. Pratt, President MacCracken and Dr. Taylor; by loan Cole; and by a reception in the large picture gallery. The lasting joy of the building for Vassar College cannot be estimated.

*Vassar College*



*Photograph by George B. Shattuck.*

FIG. 4. THE HALL OF CASTS. TAYLOR HALL, VASSAR COLLEGE.





VIRGIN AND CHILD BY BERNARDINO LUINI.

## LESSER KNOWN MASTERPIECES OF ITALIAN PAINTING

### III. THE VIRGIN AND CHILD BY BERNARDINO LUINI, IN THE LAYARD COLLECTION, VENICE

SIR HENRY LAYARD, excavator of Ninevah, later lived in Venice, collecting there a hundred or more notable pictures of the Italian school. He died in 1894. His will provided that these pictures, upon the death of his wife, should go to the National Gallery, in London. At the death of Lady Layard, some two years ago, a dispute arose over the matter between the Italian and English governments. The exportation, from Italy, of really important works of art, had been prohibited by law, and the law was invoked in this instance. On the other hand, the claim was made that the pictures had all been purchased by a British subject, prior to the passage of the law. Pending the issue, the pictures are deposited in the store room of the Museo Civico, in Venice. Judged from previous cases, we may expect to see a couple of masterpieces, like the two by Gentile Bellini, presented to the Italian government and the rest sent to England.

Our illustration shows one of the most charming of the Layard pictures, a

"Madonna" by Luini. Suave and pleasing, it is, like all of Luini's works, strong in its appeal to the eye of the average beholder. As representing that type of picture, it finds a place here, though the belief must be expressed that the very quality of readily pleasing wears off on acquaintance and is, in essence, a defect, rather than a virtue. John Ruskin would object to this, in its application to Luini, whom he rated far too high.

Bernardino Luini was one of the leading masters of the School of Milan. Born about 1475, at Luino, on Lago Maggiore, he was probably a pupil of Borgagnone and came under the influence of that very remarkable painter, Bramantino. Details of his early life are missing. As did all his local contemporaries, he fell under the sway of Leonardo and became confirmed in seeking sweetness rather than strength. Luini died about 1532. A number of his many works have found their way to America.

DAN FELLOWS PLATT.

### *A Great Temple Discovered in Ancient Memphis*

The University of Pennsylvania has recently announced the discovery of a great temple at Memphis, which may prove to be the temple minutely described by Herodotus, and if so one of the most important archaeological finds in the excavations of ancient Egypt. The temple was uncovered as a result of the explorations carried on during the past year by the Eckley B. Coxe, Jr., Expedition, under the direction of Dr. Clarence Fisher, Curator of the Egyptian section of the University Museum. A great hall of

columns has been unearthed, and enough survives, it is said, to show that the structure was of extraordinary grandeur and magnificence. The evidence thus far gathered leads Egyptologists to attribute it to the period of Seti I or Rameses II, both of whom may have had a hand in the building of the completed temple. Numerous objects of every size and description were also found, including statues, amulets, rings, necklaces, and the like. We await with interest fuller reports.





MODERN MASTERPIECES OF CLASSICAL ARCHITECTURE.  
VI. THE WALHALLA, THE GERMAN TEMPLE OF FAME.

The Walhalla, built by King Louis I of Bavaria and consecrated to the illustrious dead of all Germany, is situated about seven miles east of Regensburg on the heights above the Danube. From the foot of the hill two hundred and fifty steps lead up to the terrace like substructure. This beautiful and imposing temple, modelled in close imitation of the Parthenon, was designed by Leo von Klenze and was completed in 1842. It is built of bright gray marble and is surrounded by fifty-two Doric columns. Around the walls of the interior is a marble frieze portraying Germany's primitive history, underneath which on pedestals are one hundred and sixty-three busts of illustrious Germans. The names of sixty-four others of whom no likenesses are extant appear in brilliant letters on the walls.



VENUS THE MOTHER  
VENUS STATUE IN THE ROYAL ONTARIO MUSEUM.



## CURRENT NOTES AND NEWS

*The Venus Statue in the Royal Ontario Museum*

Worthy of a place in text books on Greek Sculpture along with other draped statues of Aphrodite is "Venus, the Mother" in the Royal Ontario Museum of Archaeology in Toronto, which was secured in Greek lands for the Museum several years ago by the Curator, Prof. Charles T. Currelly of the University of Toronto. As shown in the illustration, the goddess stands majestically on the right leg, the left a little advanced. The right arm is missing. On her left arm she fondly carried an infant, whose hand rests gently on her left breast. Unfortunately the figure of the child is lost, only the left hand surviving.

The statue immediately suggests the marble copy in Munich of the well known group at Athens by the sculptor Cephisodotus which represented the goddess of Peace, Irene, with the infant Plutus on her arm. The two statues are similar not only in the design, but also in the solid proportions of the figures and the broad treatment

of the drapery, characteristic of early fourth century sculpture. Cephisodotus was an older contemporary of the famous Praxiteles and his Irene doubtless influenced the latter in his creation of the Hermes with the infant Dionysus. It is possible that the draped Aphrodite of Cos by Praxiteles, less esteemed in antiquity than his nude Aphrodite of Cnidus, may have represented her as a mother goddess and determined the type preserved in the Toronto statue. On the east frieze of the Parthenon we have the little lad Eros leaning against the knees of his mother, Aphrodite, who points out to him the approaching Panathenaic Procession. The treatment of the head of the goddess with its mild, gentle, almost dreamy air, as well as the style and technique of the figure, distinctly indicates the relationship of the Toronto statue, whether original or copy, to the characteristic fourth century Greek sculptures we have mentioned.

*General Meeting of the Archaeological Institute of America*

The Seventeenth General Meeting of the Archaeological Institute of America will be held in conjunction with the American Philological Association at Princeton, New Jersey, December 28-30. A joint session with the Society of Biblical Literature and Exegesis will be held in Columbia University, New York, Tuesday afternoon, December 28; and a joint session with the International Congress of Americanists will be held in Washington, D. C., Friday, December 31. The Annual Meeting of the

Council of the Institute, and meetings of the Managing Committees of the American School in Jerusalem and the School of American Archaeology will occur during this period.

Members desiring to present papers at any of the sessions will kindly communicate with the General Secretary, The Octagon, Washington, D. C., before the end of October in order that the preliminary programme of the various sessions may be issued before the first of December.

*Special Meeting of the Institute at the Panama-Pacific Exposition*

A special meeting of the Archaeological Institute of America was held in San Francisco, August 2-5, 1915, in conjunction with the American Association for the Advancement of Science. Sessions were held also at the University of California and Stanford University and an adjourned meeting took place in San Diego, August 11-12, under the auspices of the San Diego Society of the Archaeological Institute. Delegates were also hospitably entertained at Los Angeles by officers of the Los Angeles Society of the Institute and special exercises were held at the Southwest Museum. Tuesday, August 3, was Archaeological Institute Day at the Panama-Pacific Exposition in San Francisco, and President Shipley was presented with a bronze medal in honor of the occasion. Among the papers read at the various sessions the following are of

interest to readers of ART AND ARCHAEOLOGY and will probably appear in future numbers:

The Architecture of the Panama-Pacific Exposition (illustrated), by Eugen Neuhaus, University of California; Spanish Colonial Architecture at the Panama-California Exposition (illustrated), by Carleton M. Winslow, Architect, San Diego; Aspects of Neolithic Culture of the Santa Barbara Channel Islands, California (illustrated), by Hector Alliot, Southwest Museum, Los Angeles; Roman Portrait Sculpture, by F. W. Shipley, Washington University; the Relation of Religion to Art in Antiquity and the Middle Ages, by Osvald Sirén, University of Stockholm, Sweden; Ghiberti's Gate of Paradise in Florence (illustrated), by George Bryce, Winnipeg, Canada; and Archaeology of the Panama-California Exposition (illustrated), by Edgar L. Hewett, Director of Exhibits.

*The College Art Association of America*

William M. Hekking, Secretary-Treasurer of the College Art Association, has been elected to a professorship in the University of Illinois. Communications pertaining to the Association may be addressed: Prof. W. M. Hekking, University of Illinois, Urbana-Champaign, Ill. Prof. F. B. Tarbell of the University of Chicago has been appointed to represent the College Art Association on the editorial board of ART AND ARCHAEOLOGY.

The College Art Association at its session in Buffalo, May 2-3, 1915, authorized its Committee on Resolutions to issue the following statement:

The members of the College Art Association desire to place on record another protest against the wanton destruction of important monuments of

art which has marked the progress of the present war in Europe. They feel that by this destruction a very precious part of our inheritance from the past has been lost, and they urge upon the government of the United States the necessity of using every means which may, with due regard to the principles of neutrality, be employed to prevent further injury to monuments which can never be replaced.

Although it will be impossible to restore to the service of mankind those objects of beauty that have been already destroyed, and although protest will do little during the war to prevent the further destruction of such objects, we hope that when the time comes for efforts to be made in the interest of a lasting world peace, the preservation of works of art will be one of the prominent purposes of those into whose hands the negotiations are committed.



## BOOK CRITIQUES

SELECT ITALIAN MEDALS OF THE RENAISSANCE. By G. F. Hill. Pp. 15, plates 50. Oxford University Press. 1915.

This portfolio, printed by order of the trustees of the British Museum, is a collection of unbound plates, reproducing some hundred and fifty medals of the Italian Renaissance in the Museum. The only text is a fifteen page list of the plates, in the form of a table of contents, containing a necessarily brief but comprehensive description of each medal reproduced. The medals are judiciously selected, the author considering not only the importance of the artist, but the excellence, rarity, and historical interest of the medal as well. Quite properly the greatest space is devoted to medals of the fifteenth century, though the sixteenth is by no means neglected. Pisanello is given the first place and is represented by twelve examples, among them the famous John Palaeologous and three representations of Leonello d'Este. The work of Pasti, too, is well shown, as well as that of the once highly prized Sperandio of Mantua. Though the north Italian schools occupy the most prominent position, the Florentine and papal medals are fairly numerous and excellently chosen.

The collotype reproductions, made from casts, are praiseworthy. In most cases both obverse and reverse are shown, though occasionally, when one side is uninteresting or unilluminating, it is omitted. One regrets somewhat the brevity of the text, and one might like to add to the number of medals reproduced, but from the point of view of the compiler's ideal, as indicated by the title, one could hardly demand a better pro-

duction. It makes a welcome addition to a bibliography all too meagre.

G. H. E.

GOthic ARCHITECTURE IN SPAIN. By George Edmund Street, F.S.A., edited by Georgiana Goddard King. Two vols., 16 mo., pp. xix, 356, vi and 352. London and Toronto, Dent. New York, E. P. Dutton & Co.

Street's famous classic of half a century ago has long been out of print; and your reviewer, in years of watchfulness, has never yet seen a second-hand book catalogue which did not set a high price upon it. It is not merely an enthusiastic and yet discriminating account of the great Spanish churches, and many minor ones; it is an entertaining guidebook, under the direct inspiration of Richard Ford. Miss King, professor of the History of Art at Bryn Mawr, has done a real service in reprinting Street in these two handy volumes. She has worked accurately—misprints are rare—has amplified the index and has added valuable notes, based upon her own travels and observations and upon the researches of Lampérez and others. Her preface is especially successful in pointing out Street's place in art criticism. Let us hope that in some future edition she will add a description of some of the interesting churches in cities like Seville which were not visited by Street. Then this will become an exhaustive, as it is already a fascinating, vade-mecum for the traveler. Not the least of its charms is the reproduction of all Street's original drawings.

Yale University.

CHARLES UPSON CLARK.

## San Diego's Dream City

### The Exposition located in the Harbor of the Sun

Three years ago in the heart of the city of San Diego, the southernmost of Uncle Sam's Pacific ports, there was a fourteen-hundred acre tract of land on which there was not a single building. Neither was there much in the way of foliage. For longer than the memory of man that tract of land had been untouched by water, only by the rare rainfalls which strike the city of the southwest by the Harbor of the Sun. As a result, the adobe soil was packed hard and seared by the almost constant sun. In the canyons and on the mesa there grew nothing save cactus and sagebrush and chapparal.

That was three years ago. Today on that mesa stands a gorgeous city of old Spain, and the land about the buildings, even down to the depths of the canyons is covered with a thick growth of semi-tropical foliage, with lofty trees and spreading shrubs and low bushes, through whose deep green flashes the crimson of poinsettia, and the tecoma, and the bright gold of the California poppy. The magic garden has taken the place of the desert. He who saw the land three years ago and sees it again today, would think that some modern Aladdin had come this way and rubbed his lamp, or that a Merlin had waved the magic wand and caused the Dream City to spring up. It has been a species of magic but not the sort affected with the wand. Styles in magic have changed in the last few centuries, and the only wand which the magician of San Diego used is known more commonly as a spade, or a trowel or a garden hose. The effect however is as tremendous as the effect of old time sorcery.—*National Magazine*.





FAÇADE OF THE CALIFORNIA BUILDING,  
PANAMA-CALIFORNIA EXPOSITION.

# ART AND ARCHAEOLOGY

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## ANCIENT AMERICA AT THE PANAMA-CALIFORNIA EXPOSITION

EDGAR L. HEWETT

### INTRODUCTION

TO ONE who has had familiar acquaintance with nearly all the American expositions, beginning with the Centennial, 1876, it is a great privilege to have been able to take part in this wonderful creation at San Diego—an exposition distinct from all its predecessors, historically, artistically, and scientifically. Conceived by local genius and executed with the assistance of specially qualified collaborators, in each department it forms a splendid setting for the celebration of the Isthmian wedding of the Atlantic and the Pacific. San Diego was selected as an appropriate city for the celebration, since it is the American port nearest the western gate of the Canal and besides has a sentimental claim in the fact that its port was the first north of Mexico to be entered by a European ship. Cabrillo, after rounding Cape Horn, explored the western coast and cast anchor in the broad bay behind Point Loma in 1542.

The charm of this Exposition is, however, not confined to its superficial features, for aesthetic attention has been extended equally to the interiors in many ways; but the serious side of human affairs, the arts and industries, history, science, and education are here given exceptional attention, the central idea being the history of man and more especially man in the early stages of his development. For the first time in the history of expositions the story of the physical man is made a chief attraction, and native American culture is presented



in a manner more illuminating than ever before.

Aside from the great group of exhibits brought together by Doctor Hewett in illustration of the highest achievements of aboriginal America—the work of the Maya race—the Exposition embodies

science, are destined to serve a great purpose as the nucleus of a permanent museum in San Diego. The readers of ART AND ARCHAEOLOGY will keenly appreciate the fact that this splendid result must be placed largely to the credit of the Archaeological Institute



FIG. 1. PREHISTORIC INDUSTRIES: SOAPSTONE MINING AND POT MAKING (See p. 103)

under his special department numerous exhibits of great historic and scientific interest, reference to some of which will be made later in these pages.

These exhibits as a whole, which have been the recipients of interested attention on the part of the public and of unstinted praise on the part of men of

of America, and more especially to the credit of the School of American Archaeology, through the enterprise of its able director, Dr. E. L. Hewett, and the enlightened support of Col. D. C. Collier, first president of the Exposition.

W. H. HOLMES.

## I

## SPANISH RENAISSANCE ARCHITECTURE: THE CALIFORNIA QUADRANGLE

CONSIDERATION of the exhibit of Ancient America is inseparable from that of the California Building in which it is housed. No one can view this noble structure, built in imperishable concrete, without a feeling of profound obligation to the architect, Mr. Bertram G. Goodhue, and his able assistant Mr. Carleton M. Winslow, under whose personal supervision it was constructed. The California Quadrangle furnished the artistic keynote to the Panama-California Exposition. It established a plane of lofty idealism for the Fair and for the future great city of San Diego. It will be the imperishable monument of the year 1915. It did not seem appropriate that the Quadrangle should be devoted to transitory uses, such as displays of state resources, so well done in the various buildings of the California counties. It afforded an opportunity for perpetual benefit to the public. Its architecture, a rich inheritance from the past, particularly from old Spain and Mexico, suggested the idea of devoting it to that which Europeans saw when they first looked upon the New World.

It seemed especially fitting that the California Building should enshrine the memorials of the race that ran its course in America before the continent was seen by Europeans. The native American civilization so impressed the Spanish conquerors when they first saw the shores of Mexico and Central America, that they carried back to the Old World glowing accounts of rich empires, opulent cities, and powerful monarchs. We now know that they made many mistakes

in the interpretation of what they saw. Yet, as the science of archaeology brings to light the remains of the ancient American world, we must admit that the enthusiasm of the Spaniards was not without justification. The brilliancy of the new race suggested another Orient. The ruins of Central American cities seemed to entomb another Egypt.

In the absorption of building a great English-speaking nation, we have lost sight of the part played by Spain in American history, likewise of the great works of the native American race which we know in its decadence. The object of the exhibit of Ancient America is to present a picture of the Golden Age of that race—a chapter of human history that is as worthy of study as are the records of its contemporaries of the Old World.

The California Quadrangle (figs. 2, 3, 7) comprises the buildings surrounding the Plaza de California, a paved square which is entered at the east end of the Puente de Cabrillo (Cabrillo Bridge) through the most imposing arch of the Exposition (fig. 4). This has been named the Ocean Gate, for the double reason that it faces the sea, lying to the west of the city, and that in its sculptured motive it represents symbolically the union of the Atlantic and Pacific Oceans by the completion of the Panama Canal, the event which the San Diego Exposition was designed to celebrate. The reclining figure on the left represents the Atlantic, that upon the right the Pacific. The waters of the two seas are being mingled. Between is seen the great seal of the city of San Diego.



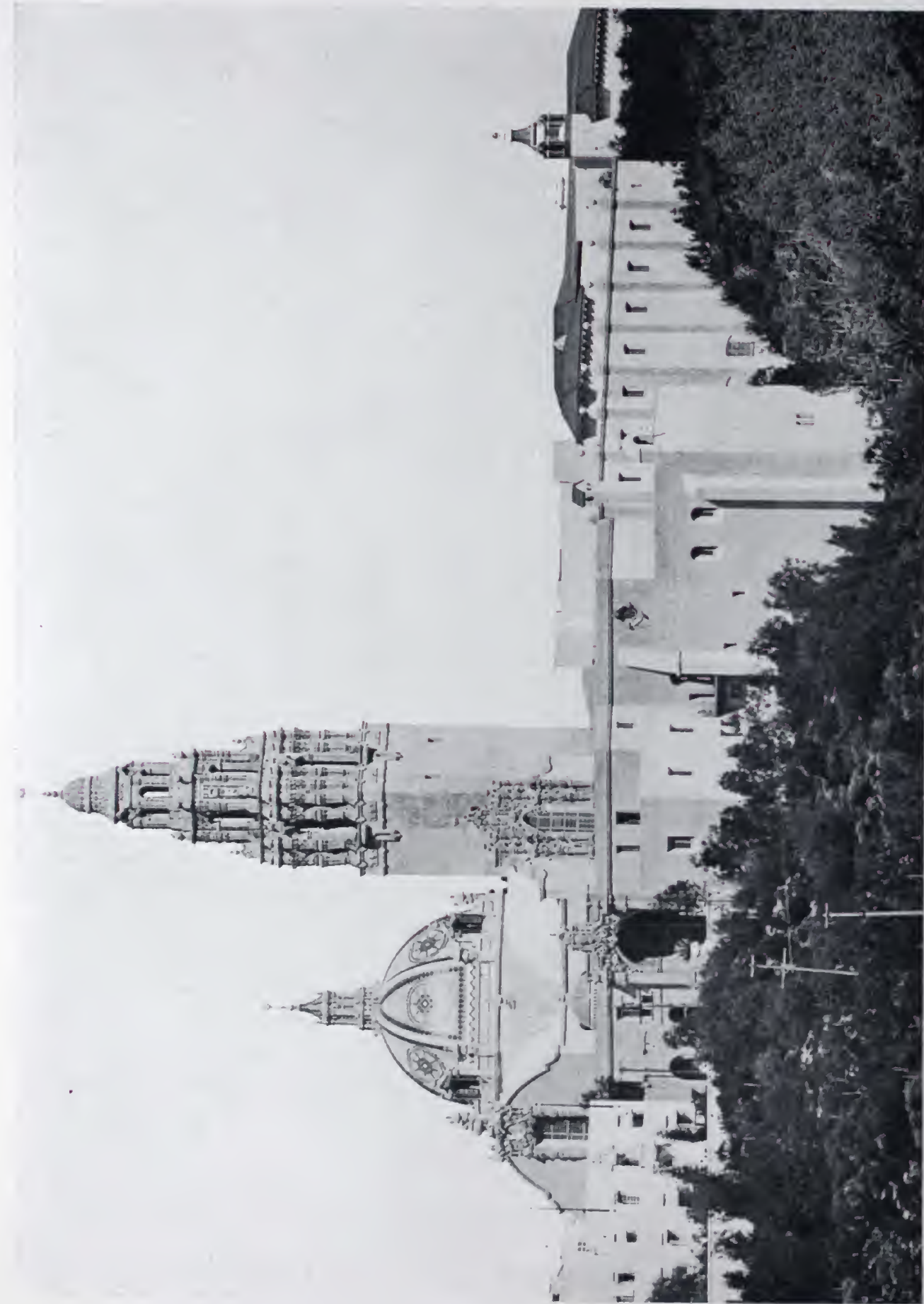


FIG. 2. THE CALIFORNIA QUADRANGLE, PANAMA-CALIFORNIA EXPOSITION

The effect of the gate as it is approached by way of Cabrillo Bridge is that of a rich and dignified entrance to a walled Spanish city.

The entrance to the Quadrangle from the east is by way of the Prado Gate, less pretentious and yet of strong architectural value. A minor entrance is under the arcade at the northeast corner by way of the Garden Gate which opens from the Plaza into the gardens to the north and east of the Quadrangle. It is one of the best of all the gates and doorways of the entire Exposition group.

The south side is occupied by the Fine Arts Building. It is in plain California Mission style. In front are to be seen the massive arched portales which are extended on the east and west sides to meet the wings of the California Building. The portales are roofed with vigas (wooden logs) in the early Mission style of New Mexico and California.

The Quadrangle contains numerous architectural details that will interest both layman and architect. The doorways at the entrances of the President's rooms, the room of the California State Commission, the office of the Director of the Exhibits in the Quadrangle, and the doors of the Fine Arts Building are worthy of notice.

The north side is occupied by the California State Building. It is the dominant architectural feature of the Exposition, and to be fully appreciated must be studied from many points of view. One of the most impressive is that from under the portales of the Fine Arts Building. This view is particularly for close study of architectural details. A point of especial interest is from the balconies of the New Mexico Building, from which the full value of the tower and dome is appreciated. For certain historic fea-

tures of the architecture no place is better than from the gardens northeast of the building. From here the arrangement of small domes is best seen. For the architectural relation of the Quadrangle to the Administration, Fine Arts, and adjacent buildings on the Prado, one should study the illustration first presented (fig. 2).

The California Building is a fine example of Spanish Renaissance architecture. The style is that of the eighteenth century cathedrals of Mexico and Central America. For its more remote genealogy one must go back to Spain, Italy, and the Moorish lands.

Every lover of art will be interested in working out the archaeology of this magnificent building. Aids to this purpose are afforded in a room in the Fine Arts Building devoted to the architecture of the Exposition. Masterpieces of ecclesiastical architecture of the last fourteen centuries have furnished elements of utility and beauty, which are marvelously combined. For the immediate progenitor of the dome see that of Taxco, most beautiful of all the churches of Old Mexico. For its remote ancestry we go back to the Duomo in Florence. The cluster of domes recalls St. Mark's in Venice and Santa Sophia in Constantinople. The use of inscriptions about the base is common in Spanish churches. The legend at the base of the California dome, beautifully expressive of the Golden State, reads:

*Terram frumenti hordei ac vinearum in qua ficus et malogranata et oliveta nascuntur terram olei ac mellis.*  
[Deuteronomy 8:8. "A land of wheat and barley, and vines and fig trees and pomegranates; a land of olive-trees and honey."]





FIG. 3. SCIENCE AND EDUCATION BUILDING, PANAMA-CALIFORNIA EXPOSITION.

Prototypes of the tower are numerous in Spain, as for example in Cordova and Seville. A strikingly beautiful effect is obtained by the concentration of ornament at the summit of the tower and in the center of the façade, in the sudden relief of a large expanse of bare wall with luxuriance of decoration. The embellishment of tower and dome with tile in brilliant colors is a fine Oriental touch, which it is hoped will be extensively used in Southern California.

The main façade will repay careful study (frontispiece). The best place from which to see this is from under the portales on the south side of the Plaza. It has been said of this façade, "There is no finer Spanish Renaissance façade in existence."<sup>1</sup> Statues of noted characters connected with the history of San Diego have been placed in the niches. At the top, in the place of honor, stands Fray Junipero Serra, of the order of St. Francis, Father-Presidente of the missions in both Alta and Baja California, who arrived at San Diego in 1769. Immediately below, at the right as you face the building, is the statue of the Portuguese navigator, Juan Rodriguez Cabrillo, who discovered the Bay of San Diego

in 1542. Above Cabrillo is the bust of his patron, the Emperor Charles V of Spain. At the left is the statue of Don Sebastian Viscaino, who sailed into San Diego Bay on the tenth of November, 1602. Above Viscaino is the bust of his patron, Philip III of Spain.

Below Cabrillo is the bust of Don Gaspar de Portolá, first Spanish governor of Southern California. Below Viscaino is that of George Vancouver, the English navigator who sailed into the harbor on the twenty-seventh of November, 1793, and made notes upon the condition of the Spanish settlement.

In the lower niche at the right is the statue of Fray Antonio de la Ascension, Carmelite historian and prior of the little band that accompanied Viscaino. At the lower left hand is the statue of the Franciscan priest Luis Jaume, who accompanied Father Serra, and who died at San Diego Mission at the hands of the Indians. He may be considered the first Christian martyr of California.

Immediately above Viscaino is the coat of arms of Spain, and above Cabrillo that of Mexico. The coat of arms of the state of California is seen over the main doorway, and the shield of the United States of America at the top of the façade above the statue of Father Serra.

<sup>1</sup>The Panama-California Exposition and the changing civilization of the great Southwest, by William Templeton Johnson. *The Survey*, July 3, 1915.

## II

### ABORIGINAL AMERICAN ART AND CULTURE

Inside the California Building will be seen the most important works of the ancient peoples of Central America. They present a picture of an age of which Americans generally are not well informed, namely, that which preceded the coming of the Europeans to the

western continent. Knowledge of American history usually begins with the period of discovery and conquest, and follows down to the present time. Here we begin at the usual point and looking backward view the history of an American civilization that reached its zenith



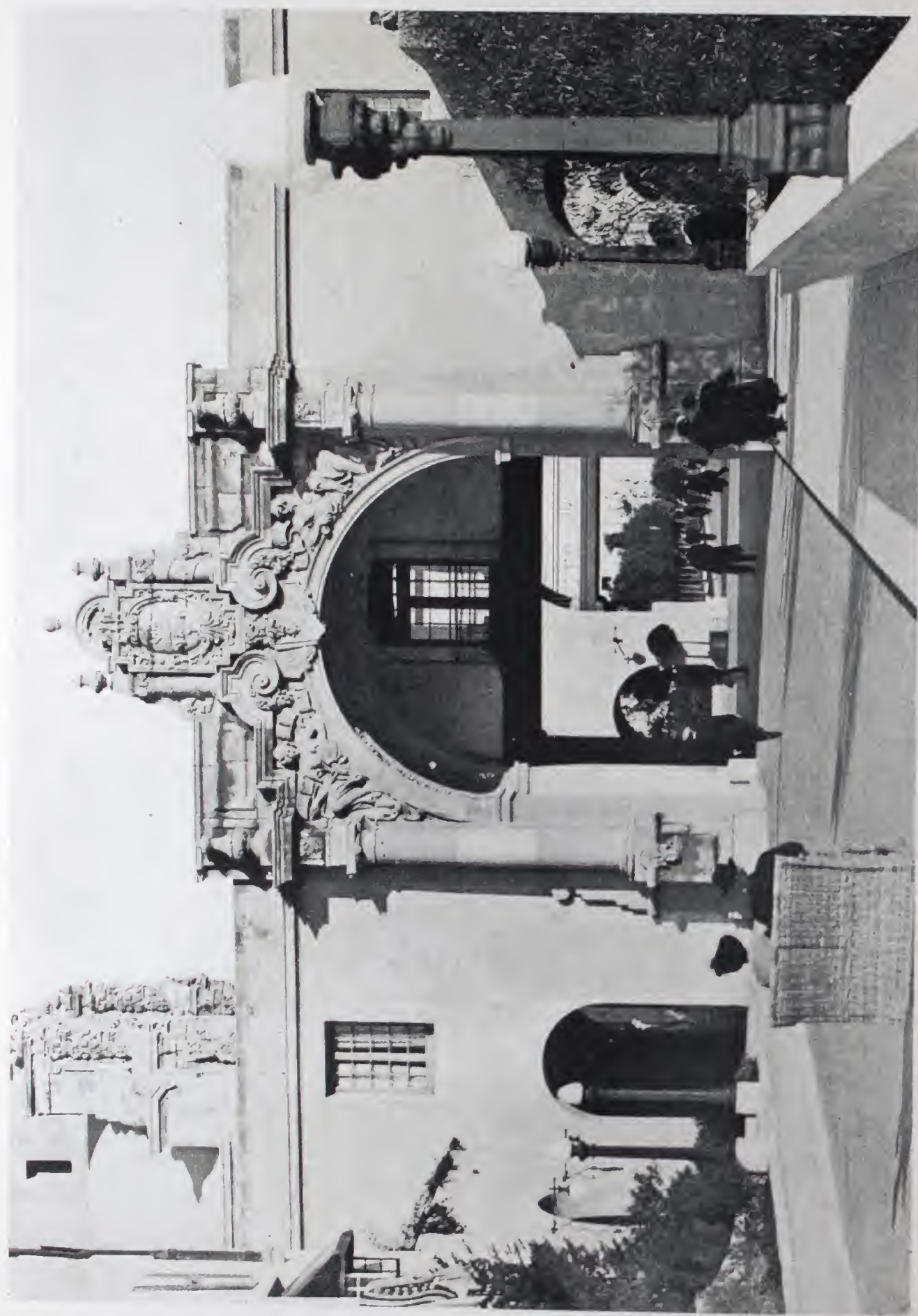


FIG. 4. THE OCEAN GATE, PANAMA-CALIFORNIA EXPOSITION.

and went down before it was known to white men.

The cities that have long lain buried in the tropical jungle have been the subject of much misleading romance. Fantastic theories about these people, their Oriental or Egyptian origin, their empires, kings, queens, and courts, the mystery of "vanished races"—all this may be dismissed. There is nothing mysterious about it. The ancient temple builders of Central America were Indians. All the characteristics of the race are seen in these ancient monuments. Like other races they slowly struggled up through a long period of evolution, matured, for a time expressed their mental and spiritual power in great works, ran their course and died, as is inevitable with individuals and races when they grow old.

It would be misleading to pretend that any connected history of the Central American cities could be written at this time. Their records, in the form of hieroglyphic inscriptions, are a sealed book, except as they relate to notation and chronology. None of the characters used in the writings of the Mayas bear any resemblance to those of the Egyptians or any other ancient people. All reports to the effect that Orientals have been able to interpret the symbols of the Central American monuments, or understand the language of the native people, may be put down as false.

For the study of the hieroglyphic writings we must depend mainly on the inscriptions carved in stone. These, found on monuments, walls, tablets, and lintels, have survived the ruin of ages. Sacred books, or codices, were once numerous, but now only three are known to exist. Large numbers of them were destroyed at the time of the Spanish

conquest of Yucatan on account of their supposedly pagan character.

Nothing can be set down as final with reference to the date of any Central American city in terms of the Christian calendar. In the subject of Maya chronology there is little agreement among students. Certain authorities, who are worthy of the highest respect, date the Maya cities as early as the twelfth century, B.C. Others place them in the early part of the Christian era. The writer is disposed to favor the latter view.

Among the older cities are Copan, Quirigua, Tikal, and Palenque; the later are Chichen Itza, Uxmal, and other cities of northern Yucatan. When America was first seen by Europeans, the Central American cities lay in ruins in the jungles, as they do now.

Evidences of a long period prior to the setting up of the sculptured monuments and the inscription of hieroglyphic tablets have been found at Quirigua in Guatemala. No proof exists to show that this civilization was derived from Egypt or the Orient. On the contrary, it appears certain that during a period of many centuries it rose, flourished, and declined upon the soil of Central America. In this it resembled the Egyptian, which ran its entire course in the Valley of the Nile.

It is customary to speak of the people of all the Central American cities as the Mayas, but that they were all of one stock cannot be claimed with certainty. It could not be proved that the people of Copan and Quirigua in the Motagua Valley spoke the same language or that they were of the same stock as the people of Yucatan or the Usumacinta Valley in Mexico. The fact that they used the same architectural principles in building and the same hieroglyphic





FIG. 5. THE PAINTED DESERT, PANAMA-CALIFORNIA EXPOSITION.

symbols is not conclusive of linguistic or ethnic identity. In the Rio Grande Valley in New Mexico it is not uncommon to find two Indian towns less than twenty miles apart where the people speak entirely different languages, yet build their houses and sanctuaries in the same way, and use practically the same symbolic characters.

The ancient cities of Central America may properly be spoken of as "Temple Cities." Among the ruined buildings there is little to suggest residential use or domestic life. It is probable that the ancient people lived much as do those of the present time, in houses of bamboo, or other light material, thatched with palm. This civilization was profoundly religious in character, a trait of the entire American Indian race. With probably no other people known has religious ceremony been so generally intermingled with all the activities of life. As the condition of society called for nothing elaborate in residence building, so also political organization was such as to require little in the way of public buildings for civic purposes. Monarchy was unknown. The government was theocratic and republican in character. There was no splendor of courts and no state government to provide for.

Religious life was highly organized. Everything else was subservient. The mysteries of the priesthood necessitated sanctuaries, shrines, altars, gorgeous vesture, and representation of gods. Imposing ceremonies, processions, and rituals demanded temples, sacred precincts, and facilities for the display of magic power with which to awe the populace. The building of a city meant the erection of temples and statues and their embellishment with images, inscriptions, and symbolic decorations.

The art of the Mayas, the strength and beauty of which is illustrated in this building, gives a perfect picture of the racial mind. In their architecture, painting, and sculpture they uttered their deepest thoughts concerning life. If art is great in proportion as it reveals the experiences of life, then this is great art. With marvelous order and with technique entirely adequate to their purposes, the Maya artists tell in their sculpture what was of most concern to them—tell of human dignity and divine power—tell in a way that was perfectly naive and honest, of their belief in the efficacy of ritual, ceremony, symbolic ornamentation, gorgeous vesture in dealing with divinity—tell of profound veneration for life and life forces, even though enshrined in bird or beast. Man, Nature, God, Life—here was their realm of thought—here was their religion, and their art cannot be separated from it.

The most conspicuous characteristic of their art is order. Note this in both their architecture and sculpture. We do not recognize the work of individual artists. Technique was racial in character and was adequate for their needs of expression, which is the main thing in style. It was progressive in its development, and one can readily trace improvement from age to age. While not an infallible guide, yet one finds it possible by studying this phase of Maya art alone, to determine the order of construction of the various monuments in a city, just as in modern cities one sees at a glance which are the buildings of the early days and which belong to later and more mature times.

Of painting there is little surviving with the exception of that found on vases. Color was used on statues and in the buildings, but only a few fragmentary





FIG. 6. NEW MEXICO STATE BUILDING, PANAMA-CALIFORNIA EXPOSITION.

examples remain. In ceramic art there was the same fine sense of order and judging from the few authentic specimens we have, the art was well advanced. The works relating to Ancient America that are displayed in the California Building may best be seen in the order in which they are here presented.

### III

#### A. THE VESTIBULE: THE FARNHAM HISTORICAL FRIEZE

On the wall is to be seen first the historical frieze by Mrs. Sally James Farnham, the original of which, in bronze, adorns the room of the governing board in the Building of the Pan-American Union, in Washington. With the generous permission of this board and the courtesy of Hon. John Barrett, Director-General, this replica was obtained. It is justly regarded as one of the important achievements in modern American sculpture (figs. 8, 9).

1. Right of entrance to the rotunda: Landing of Columbus, October 12, 1492.

2. Left of entrance: Balboa taking possession of the Pacific Ocean in the name of the King of Spain, September 1513 (fig. 8).

3. Right (east) wall: Cortés, Conqueror of Mexico, with his army: his Indian wife, Marina, at his side, the conquered Aztec chief, Montezuma, borne in a litter by his warriors. The panel at the left of this tablet represents Mineral Wealth of Mexico, mined by the Indians to enrich the conquering Spaniards. The panel at the right end represents Agricultural Wealth of Mexico. These vertical panels are framed by columns, the designs of which are taken from the sculptured monoliths at Copan in Honduras (fig. 9).

4. Left (west) wall: Pizarro, Conqueror of Peru, leading his army to the subjugation of the Incas. The panel at the left of this tablet represents a llama driver of the Andes. The panel at the right end represents a vaquero, or cowboy, of the pampas.

Below the Farnham frieze will be seen copies of four remarkable sculptures from the sanctuaries at Palenque, one of the most important ancient cities of Central America.

1. Right of entrance to the rotunda: Figure in bas-relief from the pier on the right side of the entrance to the Sanctuary of the Temple of the Sun at Palenque. In this tablet the face is ghostly in appearance. Comparison with the make-up of characters in the dramas of the North American tribes, in which shades of ancestors are impersonated, leads one to suspect that this figure is designed to represent the spirit of a deceased person. The garb indicates a character which among the Indians of our Southwest we would call a medicine-man. Note the symbolic head-dress, the jaguar mantle thrown over the shoulders and hanging down the back; also the decorated wrist and ankle bands. The straight tube held in the mouth, with the smoke or flame which appears to issue from it, suggests the ceremonial pipe or cloud-blower of the Pueblo Indians.

2. Left of entrance to the rotunda: Figure in bas-relief from pier on left side of entrance to the sanctuary above mentioned. The vesture is that of an Indian priest. Note the elaborate plumed head-dress, necklace of beads, richly embroidered mantle, sash and apron, leggings and sandals. The face is that of a living person. Above the head and in front of the face are hieroglyphic characters.





FIG. 7. THE CALIFORNIA BUILDING FROM THE NORTHEAST.

3. Right (east) wall: This is the famous altar-piece known as the Tablet of the Cross. It occupies a wall of the Sanctuary in the Temple of the Cross and corresponds in many respects with the altar-pieces in other temples, such as the Temple of the Sun nearby. The tablet is of limestone, and the figures are sculptured in low relief. The cross is here used as an altar, and as in other parts of Ancient America, probably represents the Four World Quarters. Perched on the top is the Quetzal, the Sacred Bird of Central America. The two priestly figures in ceremonial attitude before the altar are in the act of presenting offerings. Remembering certain rituals and the significance of the cross among northern Indian tribes, this suggests a birth ceremony in which occurs the Invocation to the Four Winds. Columns of hieroglyphic inscriptions are seen at the right and left. The entire original of this altar-piece may now be seen in the National Museum of the City of Mexico. One panel of it was, from the year 1842, kept in the city of Washington, D. C. As an act of international courtesy it was, on the recommendation of Secretary of State Elihu Root, after his visit to Mexico City in 1906, and by action of the Secretary and Regents of the Smithsonian Institution, returned to the government of Mexico.

4. Left (west) wall: This is another remarkable altar-piece known as the Tablet of the Sun Mask. It occupies the back wall of the Sanctuary of the Temple of the Sun and corresponds closely in many respects to panels in the other temples. The tablet is of limestone and the figures are sculptured in low relief. The two priestly figures are in the act of making offerings, doubtless, to the deity to whom the temple is dedicated.

Each stands upon the back of a grotesque human figure, and between these are two other figures of remarkable design, clothed in jaguar skins, supporting upon their upraised hands, Atlas fashion, a massive table upon which is the great mask with expanded eyes and protruding tongue. Columns of glyphic inscriptions occur at the right and left, and two small inscriptions near the upper margin of the tablet.

On opposite sides of the outer entrance to the vestibule will be seen upon the walls panels of hieroglyphic inscriptions from Palenque (fig. 10). These are the halves of what was formerly a single hieroglyphic panel. They afford an excellent example of the glyph carving in which Palenque appears to have surpassed all other Central American cities.

Above the door, between the vestibule and the rotunda, is a Maya inscription (fig. 11) arranged in the form of an initial series, expressing the date of the opening of the California Building to the public, that is, January 1, A. D., 1915. The difficult problem of correlating a date in the Christian calendar with one in Maya chronology, expressing it correctly, year by year, and day for day in Maya hieroglyphic characters, was undertaken by Mr. Sylvanus G. Morley. The reading worked out by him and accepted as nearly a correct rendering as could be offered at the present time is Cycle 13, Katun 8, Year 3, Month 10, Day 13, 6 Ben, 7 Uo. Without going into a technical explanation of Mr. Morley's reading, it may be stated for the benefit of those who have not studied Maya chronology, that the date here expressed as it might have been by an ancient Maya scribe, places the construction of this temple in the year 5363 of the Maya calendar.





FIG. 8. DISCOVERY OF THE PACIFIC BY BALBOA. REPLICA OF THE BRONZE ORIGINAL BY MRS. S. J. FARNHAM IN THE BUILDING OF THE PAN-AMERICAN UNION, WASHINGTON.

#### IV B. THE ROTUNDA: REPLICAS OF CENTRAL AMERICAN MONUMENTS

1. On passing through the door leading from the vestibule to the rotunda, everyone should notice the splendid columns reproducing the portal of the temple which is situated on the top of the pyramid, commonly called El Castillo, at Chichen Itza, Yucatan. The name appears to the writer so unsatisfactory that he prefers to designate it as the Temple of Sacrifice, for reasons which will appear later. These majestic columns are here reproduced for the first time under the direction of Mr. W. H. Holmes. The motive is the Plumed Serpent known all the way from the United States to Central America, and doubtless having throughout the same significance. The Avanyu of the ancient cliff-dwellers represented the major deity of these people; having to do with water, springs, streams, rain, and consequently with growing crops. The bird in Southwestern mythology was the emblem of the sky gods, as the reptile was of earth deities. In the Plumed Serpent we have a representative of both. In all probability the Quetzalcoatl (*quetzal*, bird; *coatl*, reptile) stood for a similar concept of deific power in Central America.

2. In the center of the rotunda (fig. 11) is a large relief map of Central America, made by the School of American Archaeology, showing the distribution of the ancient Temple Cities. Fifty sites are shown on the map. Note especially the location of Quirigua, Copan, Palenque, Tikal, Uxmal, and Chichen Itza, from which cities the various works of art and architecture shown in this building are derived. Note that these cities are mostly in the lowlands, in a region that is now extremely unhealthy for the white race, as well as the Indian. In the absence of known causes



FIG. 9. CONQUEST OF MEXICO BY CORTÉS. REPLICA OF THE BRONZE ORIGINAL BY MRS. FARNHAM IN THE BUILDING OF THE PAN-AMERICAN UNION, WASHINGTON.



for the depopulation of Maya cities, one is disposed to attribute it to the development of diseases, such as caused the deterioration of ancient civilizations of southern Europe. At the time of the Spanish conquest, the native cultures of the salubrious highlands were flourishing, while those of the hot, fever-stricken lowlands languished or were extinct.

3. Arranged around the rotunda are replicas of the great monoliths of Quirigua. These remarkable monuments surpass everything else of their kind on the American continent. They are of two classes, namely, sculptured shafts, or stelae, and huge zoöomorphic figures which bear the same kind of hieroglyphic inscriptions and show the same sculptural features as the shafts. Both types appear to have had the same purpose, which doubtless was to serve as memorials of great men

and women who occupied high positions as priests or rulers. Inscriptions were usually placed upon the narrow sides of the shafts, and the animal designs are likewise covered with hieroglyphics and decorative elements. In the wealth of sculpture at Quirigua there is a noticeable absence of war implements and scenes of combat. This would seem to indicate a peaceable race. One notes also the absence of scenes of sacrifice, cruelty, or

bloodshed. In the delineation of the human figure proportion was ignored. Little attention was paid to anatomical details. There is nothing in the dress, vesture, or insignia on which to base a determination of sex, but male figures are always bearded and female beardless. In the arrangement of the monuments about the Plaza at Quirigua, it is of interest to note that the north end was

given over to monuments of men, while those south of the center are women's monuments. Nearly all are double-figured and in no case do the figures duplicate. There can be little doubt that these are portraits.

The story of the making of these reproductions is of great interest. The building of tracks and scaffolds; the transportation of vast quantities of glue, plaster, and clay; the repeated experiments ending in many failures, but ultimately in per-

fect success in the use of glue molds in the tropics; the handling of heavy masses with scanty mechanical appliances; the problems of crating, packing, and transporting, and finally setting up the monuments in the rotunda of the California Building; repairing, pointing, coloring, finally achieving replicas correct to a hair line and preserving not only the art of the monuments but the very texture of the stone—is an im-



FIG. 10. HIEROGLYPHIC INSCRIPTION, PALENQUE.

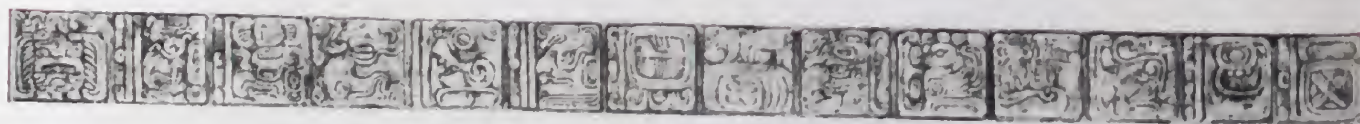


FIG. 11. DATE OF THE CALIFORNIA BUILDING IN MAYA GLYPHS.

S. G. Morley.

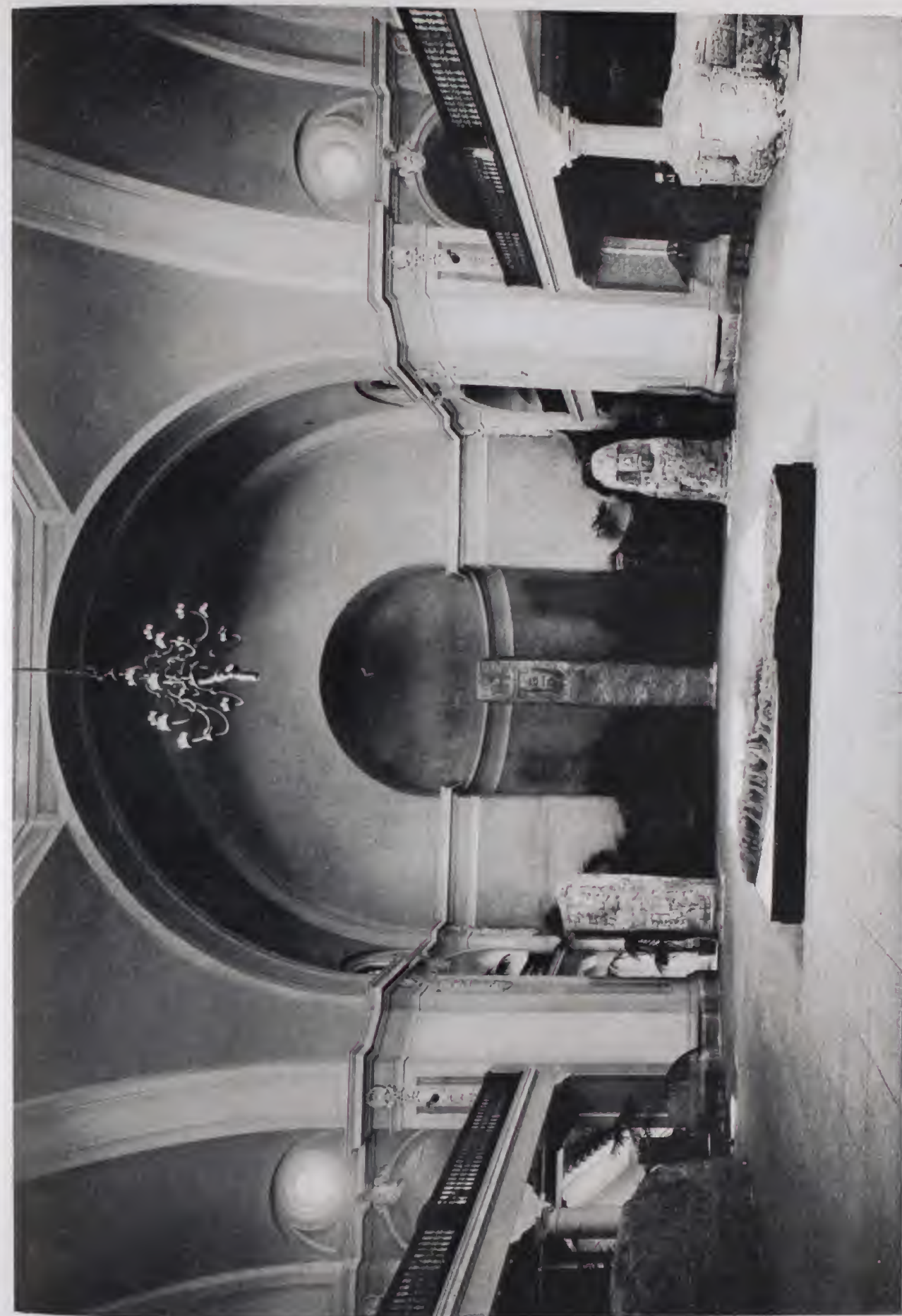


FIG. 12. ROTUNDA OF CALIFORNIA BUILDING WITH REPLICAS OF THE GREAT MAYA MONUMENTS.





FIG. 13. THE GREAT TURTLE. SCULPTURED STELE, QUIRIGUA.

portant chapter in Central American archaeology.

Beginning at the left side of the rotunda on entering, we may notice the monuments in order. The first, called by Maudslay the Great Turtle (fig. 13), is the crowning achievement of native American art. In the beauty of its design, the richness of its execution, and the breadth of its conception, it is not approached by any other American example. The figure seated in the mouth of a mythic animal, which probably stands for some deific earth power, is that of a young woman bearing the manikin wand and ceremonial shield, and wearing the crown and elaborated head dress which characterize the costumes of all the sculptured figures at Quirigua. The entire surface of the block is carved. The principal inscription occupies the back part of the monument. The people who executed this probably reached the limit of their powers, for no later work of the people of Quirigua equals it, and a marked change in style appears in those of later date. The making of this replica of the greatest of all Central American sculptures became possible through the generosity of Mr. George W. Marston of San Diego.

The next monument is a shaft belonging to the group having low pedestals. On the front is a bearded figure, standing, with hands resting upon a breast-plate or bundle, which extends from shoulder to shoulder. Unlike the figures on the other monuments, the personage here represented does not carry scepter and shield, but instead holds the ceremonial bundle above referred to. On the back of the shaft is a grotesque figure in low relief, which stands in a peculiar position with one knee flexed and, instead of being presented full-face, is in profile.

The figure represents the Death God. On the narrow sides of the monument are columns of hieroglyphic inscriptions.

The next monument seen in making the round of the rotunda is an enormous shaft, the largest at Quirigua, in fact, the largest in the whole Maya world. It is placed in the center of the apse of the cathedral-like interior. It is between twenty-six and twenty-seven feet high, and the original has an unknown projection below the surface. It is approximately five feet broad and three and one-fourth feet thick. The original leans thirteen feet from the perpendicular; consequently it is usually spoken of as the "Leaning Shaft." The writer has been able to prove that this monument never occupied a vertical position, in short, that the builders found themselves unable to raise it. The weight of the original is upward of one hundred thousand pounds. The material is red sandstone. The block was quarried some five or six miles from the temple area and hauled by means of ropes pulled by hundreds of individuals down the inclined way which leads from the quarry to the water. There it was probably loaded upon boats, floated down the Motagua to a point opposite the city, then brought in by means of the canals to the sacred precinct where it was erected. The human figures, both male, sculptured upon the two broad faces are the most imposing to be seen in Quirigua. They are of heroic size, and have the appearance of great strength. Each figure bears a manikin wand in the right hand and the tasseled shield in the left. The two narrow sides are covered from top to bottom with hieroglyphic inscriptions. The necessary means for the reproduction of this monument were generously furnished by Mr. Joseph W. Sefton of San Diego.





FIG. 14. "THE QUEEN." SCULPTURED STELE, QUIRIGUA.

The next monument, called The Queen, is eleven and one-half feet high (fig. 14). Upon its opposite faces are sculptured female figures in high relief. The faces are full and beautifully rounded. The figures are very short. The one facing the rotunda bears the manikin wand and tasseled shield. It was the last monument set up at Quirigua, and while lacking in the cruder strength of the older and larger shafts, and in the rich beauty of the Great Turtle, it displays a fineness of workmanship not to be seen in the earlier groups.

The last monument in the rotunda is one belonging to the zoöomorphic group (fig. 15). It is carved to represent a huge dragon-like monster. From the mouth issues a human head with bearded face, the head crowned in the same manner as those upon the sculptured shafts. The hands rest upon the chest. On the arms and legs of the monster, which extend back along the sides and around the rear of the figure, are inscriptions in the intricate and elaborate style known as the full-figure hieroglyphic. The monument is generally known as The Dragon.

# V

## C. THE BALCONIES: THE VIERRÀ FRESCOES OF ANCIENT CITIES OF AMERICA

We may begin a description of the works of art upon the balconies surrounding the rotunda with the east side. The object of the entire display in the California Building has been to give a broad picture of Central American culture, omitting everything commonplace and showing the great achievements of the people in city building, architecture, art, together with their environmental conditions, religious ceremonies, industries, occupations, and beliefs. This has been done without introducing a single case of museum specimens.

First to be noticed are the frescoes, extending around the interior of the building on three sides. These were painted by Mr. Carlos Vierrà of the School of American Archaeology. They show six of the most important ancient cities of Central America. They illustrate the typical arrangement of Maya cities, together with the different types of buildings used in their architecture, all of which were probably for religious

purposes. The so-called temples were used for religious observances, and the palaces were sanctuaries of the priesthood. With the exception of Quirigua, little restoration has been introduced in the paintings. They may be accepted as a fair representation of the appearance of these cities as they now lie in ruins, and have lain for many centuries. Considerable restoration has been done in showing the temples at Quirigua. The excavation of the city has not proceeded nearly so far as is indicated in the painting. It will be convenient to describe these frescoes in the order of their arrangement as we pass around the three balconies.

Quirigua (fig. 16) is situated in the flood-plain of the Motagua River in the Republic of Guatemala. This valley is one of incomparable richness of soil. The vegetation is indescribably dense. The city is devoid of written history and tradition is silent concerning it. The architectural remains consist of





FIG. 15. THE DRAGON. SCULPTURED STELE, QUIRIGUA.

ruined temples upon massive terraces of red sandstone, grouped about a Great Plaza and two smaller rectangular courts. These constituted the Sacred Precinct of the city. In architecture Quirigua is less imposing than other ruined cities of Central America. In sculptured monuments it is unequalled. These are arranged about the Great Plaza and in the Ceremonial Court south of it. There are thirteen of the greater monuments and three of lesser importance. Eight examples are installed in the California Building.

The ruins of Quirigua have been uncovered by the School of American Archaeology, which commenced excavations there in the spring of 1910. The work was made possible by generous contributions from members of the St. Louis Society of the Institute for three years. It received also an equal amount of financial aid from the United Fruit Company. The rest of the expenditure has been borne by the school, the exposition, and private subscribers. At the beginning it was a completely buried city. The ruins presented the appearance of earth mounds covered with enormous trees and dense jungles. Only a part of the Sacred Precinct was uncovered. It is estimated that five years will be needed to complete the work. Excavations will be resumed in 1916. The story of the uncovering of Quirigua will stir everyone who enjoys a battle with difficulties. The mechanical problems involved were usual in archaeological research. The destruction of a mass of tropical vegetation amounting to thousands of tons per acre, the removal from the buildings of trees a hundred and fifty feet high and twenty-five feet in circumference without destroying monuments, stairways, and walls was an enormous task.

Great stumps with roots spreading out over the mounds and penetrating them in every direction added to the difficulty of excavation. Two seasons were devoted to this part of the work alone, and happily all was finished without injury to a single monument or inscription.

The ruins of Copan (fig. 17) are situated in the Republic of Honduras not far from the frontier of Guatemala. It is in the valley of the Copan River, a tributary of the Motagua, upon the banks of which, some thirty miles away, we find the ruins of Quirigua, from which it is separated by the mountain range which forms the boundary between Guatemala and Honduras. Copan may be reached on horseback in two days from either Zacapa or Gualan on the railway which extends from Puerto Barrios to Guatemala City.

Unlike the majority of the Central American cities, Copan was situated in the hills at an elevation of approximately two thousand feet above sea level. The district is not heavily forested, as is the main valley of the Motagua, though from early accounts it would appear that the city was formerly surrounded by a heavy jungle.

Of Copan there is but little that is satisfactory in recorded history. We have a description of the ruins in a letter of Diego Garcia de Palacia written in 1576 to King Philip II of Spain. He speaks of "ruins and vestiges of a great population and of superb edifices of such skill and splendor that it appears they could never have been built by the natives of that province." His description of the ruins will still pass as reasonably accurate. As to his information gained concerning them he states—





FIG. 16. QUIRIGUA.



FIG. 17. COPAN.



FIG. 18. TIKAL.

FIG. 16-18. MURAL DECORATIONS. PANORAMIC VIEWS OF ANCIENT MAYA CITIES  
BY CARLOS VIERRA.

I endeavored with all possible care to ascertain from the Indians, through the traditions derived from the ancients, what people lived there or what they knew or had heard from their ancestors concerning them, but they had no books relating to their antiquities, nor do I believe that in all this district there is more than one, which I possess. They say that in ancient times there came from Yucatan a great lord who built these edifices but at the end of some years he returned to his native country leaving them entirely deserted.

Little of value was recorded concerning Copan until the year 1839 when Mr. John L. Stephens explored Guatemala, and with the aid of Catherwood, the artist, prepared a most interesting and valuable account of the ruins. For the first really important investigation of Copan we are indebted to the English explorer, Mr. Maudslay. Next in importance was the work of the Peabody Museum, Harvard University, prosecuted during the years 1891-1895. As results of these expeditions we have the valuable reports of Mr. Maudslay and of the Peabody Museum which afford a more satisfactory body of literature concerning Copan than is to be found of any other Maya city. Unfortunately, the excavation of Copan was prematurely terminated, so that this great city has only partially told its story. A fact that should not be forgotten is that the Copan River is rapidly cutting into the temple area, causing serious destruction each year. Furthermore, great loss is occasioned by the vandalism of the native population. Unless these two causes of destruction can be speedily arrested, the loss at Copan will be irreparable.

Tikal is one of the largest of the ancient cities of the Maya people (fig. 18). Its ruins occupy an area of approximately a square mile. It covers three natural

terraced hills, and like most other Maya cities, was composed mainly of temples built upon pyramidal bases. The walls of the temples are of enormous thickness in proportion to the room space as at Quirigua. The situation of Tikal is in the interior of Guatemala in the Department of Peten. Because of its extreme isolation the city has been seen by but few travelers. There is little authentic history of the place. Mention is made of its having been explored in 1848, and various other reports have been published during the latter part of the last century. The best known and the most satisfactory are those of Mr. Alfred Maudslay and Mr. Teobert Maler. During the last few years the ruins of Tikal have been under investigation by the Peabody Museum, Harvard University. An important development of the culture was the remarkable wood carvings that have been rescued from the temples. From nowhere else in Central America, and from but few places in the world, do we have such beautiful examples of ancient wood sculpture.

Palenque (fig. 19) is situated in the state of Chiapas, Mexico, bordering on the Republic of Guatemala. It is in the heavily wooded hills to the west of the Usumacinta River. The original meaning of the name Palenque is not certainly known, nor is anything definite known as to its history. In his expedition to Honduras in 1542-1546, Cortés must have passed within a short distance of the place. As no mention is made of it in the account of that expedition, it would seem certain that the city must have been completely in ruins and buried in the tropical jungle at that time.

There are dim traditions concerning the origin of Palenque, but these have little historic value. Like Tikal and



the southern cities, Copan and Quirigua, it flourished during the Ninth Cycle of the Maya Calendar which, as quite generally held by American students, would correspond to the early centuries of the Christian era.

Juarros, the historian of Guatemala, states that the ruins of Palenque were discovered about 1750. Brasseur de Bourbourg gives 1746 as the date. The first explorations of the ruins which led to important results were those of Captain Antonio del Rio in 1787. Among the most important explorations and accounts of this ancient capital are those of Du Paix, Waldeck, Stephens, Charnay, Maudslay, and Holmes.

Chichen Itza (fig. 20) was one of the largest and most important of the ancient Yucatecan cities. Its ruined buildings cover an area of, at least, a mile square, and minor structures are to be found in every direction for a distance of several miles. It belongs to a later time than Palenque and Quirigua, and appears to have been contemporaneous with Uxmal and Mayapan. The ruins are in the northeastern part of the Peninsula of Yucatan, about one hundred miles from Mérida, the capital. The ancient city takes its name from a tribe, the Itzas, which is supposed to have founded it, and from two natural reservoirs, called *cenotes*, around which the city was built. Numerous evidences of Aztec culture are to be seen at Chichen Itza. In fact, it is by some authorities held to have been an Aztec rather than a Maya city. While the investigations of Chichen are insufficient to establish beyond question any important facts as to its history, students have reached the conclusion that it had its origin as a settlement of Maya people in the early centuries of the Christian era, and that

after its first period of development it underwent a change of occupancy, passing into the hands of the conquering Aztecs from the Mexican plateau.

Important buildings in Chichen, all of which are to be seen in Mr. Vierra's paintings, are the Pyramid of Sacrifice, Place of a Thousand Columns, Ball Court, Temple of the Tigers, Temple of the High Priest's Grave, Casa Colorada, Temple of Acatzib, and the Monjas.

The city of Uxmal (fig. 21) must have ranked in importance with Chichen Itza, and in some respects was more magnificent than that great religious center. It is in northern Yucatan, about fifty miles west of the capital, Mérida. It is reached partly by rail and partly by horse trail without great difficulty. It contains probably the finest examples of Central American architecture of the later period, and like Chichen Itza has noteworthy Aztec features. Architectural sculpture here reached its highest development, the upper zone of the temples and palaces being loaded with ornament in the form of stone lattice-work and beautiful tracery. Façades of vast extent are lavishly decorated with conventionalized motives. The pyramids resemble the one at Chichen Itza in style and magnitude. As compared with the southern cities, Quirigua and Copan, and with Palenque, the representative city of the western Maya area. Uxmal and Chichen Itza are poor in hieroglyphic inscriptions. Nowhere, however, has more beautiful sculpture in the round been found than at Uxmal. It is less known than any of the other cities named. No excavations of any importance have been carried on there, due largely to the deadly fevers for which the place is celebrated.



FIG. 19. PALENQUE.



FIG. 20. CHICHEN ITZA.



FIG. 21. UXMAL.

FIGS. 19-21. MURAL DECORATIONS. PANORAMIC VIEWS OF ANCIENT MAYA CITIES  
BY CARLOS VIERRA.



VI

SCULPTURED FRIEZE OF ANCIENT AMERICAN LIFE



FIG. 22. THE QUARRYMEN.



FIG. 23. THE SCULPTORS.



FIG. 24. THE BUILDERS.

FIG. 22-24. PANELS FROM SCULPTURED FRIEZE BY MRS. JEAN BEMAN SMITH, PORTRAYING SCENES FROM MAYA LIFE.

Returning to the east balcony, we may next notice the sculptured frieze which is placed above the frescoes just described, and which likewise extends around the interior of the building on three sides. This frieze is the work of Mrs. Jean Beman Smith, and is worthy of a more extended description than can here be given. It is a continuous band of sculpture in low relief. The entire length is 150 feet. The panels are each 9 feet long by  $3\frac{1}{2}$  feet wide and are set in the wall at a height of 11 feet from the floor. The highest relief in the molding is about 2 inches. By coincidence the breadth of the frieze and the height of the relief correspond to those of the Parthenon frieze. The number of figures is about 150. There is no repetition, and all of the ornament, dress, and architectural design are purely Maya. The character and style of the work is also largely that of the ancient artists.

We may begin with the panel at the north end of the east gallery, and as with the frescoes, follow around the interior from left to right. The first panel (fig. 23), entitled *The Sculptors*, shows a scene of ancient activity, such as might have attended the building of Copan or Quirigua, namely, that of decorating one of the huge monoliths to be set up in the Plaza. The second, *The Builders*, (fig. 24), represents the construction of a temple under the direction of a priestly figure. Here may be seen the stone cutters, naked save for their square aprons, wielding their stone hammers, chisels, and other implements. Other toilers with carrying bands around their foreheads and over their shoulders are bringing the finished blocks to the

builders of the wall. In the third panel is shown the serpent dance, comparable in arrangement and action to what may be witnessed every summer among the Hopi Indians of our Southwest. It is noticeable that the serpent and bird symbolism of the Cliff Dwellers are here developed into the gorgeous feathered serpent designs of the Maya columns and altar-pieces.

In the fourth panel is seen the transportation of a huge monolith through the tropical forest to the river where, after being loaded upon boats and transported to the city, the sculptors will decorate it and a multitude of workmen will erect it in the Plaza. The last panel on this side (fig. 22) shows *The Quarrymen* at work removing a block that has been detached from a ledge preparatory to hauling it, upon rollers, down the inclined highway to the river.

On the south gallery the first panel shows the entrance to a temple of Copan. About the doorway is an elaborate mosaic with symbolic serpents intertwined. The priest and assistants officiate before an altar in the background from which rise the sacred fires. In the foreground the altar receives the offerings of the people. A priestess, in rich costume, with netted skirt and ceremonial headdress, officiates, as musicians pass about the altar in procession. The theme of this panel, namely, a Ceremony of Dedication, is beautifully developed in the luxury and splendor of decoration, elaborately carved figures and hieroglyphics, and the activities of the participants.

The companion panel to the right (fig. 25) represents a Ceremony of



Divination. It shows priests and people in ceremonial grouping before a monument which has just been erected. Incense issues from the sacred pipe and floats to the six directions. In the great portal is a priestess in flowing headdress.

Passing to the west gallery we see the most dramatic theme that Mrs. Smith has chosen for her expression of Maya activities. It is the Sacrifice of the Virgins. It is developed in three panels entitled The Procession (fig. 26), the Sacrifice, and the Return of the Oracle (fig. 27). The tradition on which it is based is set forth in the ancient chronicles. It was a propitiatory sacrifice of virgins to the rain gods in time of drought. The maidens prepared for the sacrifice are seen in the first panel proceeding along the paved causeway to the altar upon the brink of the Cenote of Sacrifice. From here at daybreak occurred the plunge into the water of the Holy Well, from 70 to 100 feet below. If, perchance, a maiden survived this plunge, she might be rescued at midday, after which the artist conceives her to have been accepted as an oracle. In the third panel is seen the Return of the Oracle, her approach to the altar in the form of a cross, upon the top of which, as in the Cross of Palenque, is seen the sacred Quetzal, and before which is seated the lord of the city upon his tiger-headed throne. The story of this sacrifice is quaintly told in a letter written by three of the original conquistadores of Yucatan in response to a circular sent out by the

Council of the Indies in 1579 asking for information about the discovery and conquest of the country and the native inhabitants.

The next two panels depict the ceremonial ball game known to the Aztecs as *tlachtli*. It was described by Herrera as one of the diversions of Montezuma and his court, but doubtless was little understood by those early observers. The presence of the ball court at Chichen Itza and Uxmal is an evidence of a strong development of Aztec culture in northern Yucatan.

The first panel represents the assemblage of the spectators upon the great walls of the ball court. An Indian maiden bears the ball, which, according to the account of the chronicler, was "made of the gum of a tree that grows in hot countries, which having holes made in it distils great white drops which soon harden and being worked and moulded together turn as black as pitch." The second panel shows the game in progress. The ball was struck with any part of the body and sometimes it was necessary that it should rebound from the hip upon which was fastened a piece of stiff leather. The successful players were rewarded with loads of mantles and sometimes with gold and feather-work. The ball had to be cast through a hole in a great round stone fixed upon the wall of the court at a considerable height from the floor. Whoever succeeded in this remarkable feat, which rarely happened, was entitled to the mantles of all the spectators.



FIG. 25. CEREMONY OF DIVINATION.



FIG. 26. SACRIFICIAL PROCESSION OF THE VIRGINS.



FIG. 27. RETURN OF THE ORACLE.

FIGS. 25-27. PANELS FROM SCULPTURED FRIEZE BY MRS. JEAN BEMAN SMITH, PORTRAYING SCENES FROM MAYA LIFE.



## VII

## OTHER REPLICAS AND RECONSTRUCTIONS

Upon the balconies are replicas of some other monuments of Quirigua. The one standing upon the south balcony belongs to an early period of Maya sculpture. The monument is double-figured, the one on the south side being badly defaced, evidently by the falling of a tree which has shaved off the principal features. The figure on the north is well preserved, and is one of the strongest examples at Quirigua. The monument is at the north end of the Plaza. Both figures are bearded. The one on the north side holds a scepter in the left hand and the right bears a tasseled shield. On the narrow sides are hieroglyphic inscriptions in the best style of glyph carving that has been found.



FIG. 23 ALTAR-PIECE OF ZAPOTE WOOD. TIKAL.

On the west wall of the south balcony is in some ways the most remarkable specimen of Maya art that has been chosen to illustrate the aesthetic achievements of these extraordinary people. It is a replica of a famous wood carving (fig. 28), an altar panel of zapote wood, sculptured in low relief, from the Temple of the Sun at Tikal, Department of Peten, Guatemala. The design is exceptionally elaborate and in execution is not excelled by any similar work in America. The subject is a richly costumed personage, holding a standard or baton in his right hand, his face framed in the open mouth of a grotesque monster. He is enclosed beneath the arched body of a feathered serpent of extraordinary design, the head appearing at the left. Perched on the serpent arch above is the figure of a mythical bird-monster, probably representing some important deity of the Maya pantheon. Hieroglyphic inscriptions occur at several points. Note especially the two exquisite portrait faces in the lower right-hand part. The original of this specimen is now preserved in the Museum at Basel, Switzerland.

The examples taken to show the greatest achievements of the Central American people in architecture are placed upon the east and west balconies. The first to be described is the one on the east side. It is called El Castillo (fig. 29), or as the writer prefers to name it, the Temple of Sacrifice. The structure is in the main well preserved, minor restorations being required at several points, but not involving the introduction of any feature not reasonably well verified. The pyramid is approximately 190 by 230 feet at the base, 80 feet in height, and about 60 feet square at the summit. In design and execution this structure is of excep-

tionally high order, indicating great progress in architecture. It has four grand stairways, each about 30 feet in width and bordered by balustrades, those on the north side (front) terminating at the base in two great serpent heads about 10 feet in length, each carved from a single block of limestone. The pyramid is built of coarse rubble, cemented and faced with blocks of hewn limestone, neatly dressed and tastefully panelled.

The temple which surmounts the pyramid is about 44 by 48 feet at the base and 24 feet in height. It is well preserved save that a portion of the façade has fallen as the result of the decay of the wooden lintels which spanned the wide doorway. The walls and roofs are four feet or more in thickness, and the stones of the facing were so well cut and fitted as to require little mortar.

As usual in Yucatan buildings, the exterior walls of the lower story are quite plain and are separated by a heavy molding from the upper story which is ornamented with panels and surmounted by a cornice. In this case the cornice was, according to Maudslay, crowned by a coping of open fretwork of exceptional beauty. The lower story is pierced by four doorways, that on the north wing being 21 feet wide and 8 feet 6 inches high, divided by two great stone columns. These support the wooden lintels and are carved to represent the feathered serpent divinity of Yucatan mythology. Passing into the outer chamber or vestibule between these columns and through a second doorway, the visitor enters a large chamber spanned by two high pointed arches, the separating walls being replaced by two square sculptured columns. This chamber was doubtless a sanctuary and served some important purpose in the religious rites of the people.



The model was built under the direction of Wm. H. Holmes of the U. S. National Museum.

The final example of architecture presented and the one which may be said to represent the last word in the building art in Ancient America has been placed on the west balcony (fig. 30). The great building here shown is called

débris. The upper terrace, shown in the model, is 20 feet in height, and is ascended by a stairway of 30 steps, 120 feet long. The main terrace is about 20 feet in height, and is so extensive, covering several acres, that it could not be shown in the model. The foundation platform is only a few feet in height. The building proper is a massive rectangular



*Reconstruction by W. H. Holmes.*

FIG. 29 THE TEMPLE OF SACRIFICE, CHICHEN ITZA.

"The Palace" or "House of the Governor," and is one of the chief structures in the ruined city of Uxmal. The age of the city is not known, but the building is still well preserved, and but little restoration was necessary in completing the model. It is built of hewn limestone and is 320 feet long, 40 feet wide, and 28 feet high. It rests on a triple terraced pyramid, now almost wholly buried in

structure with vertical walls, perforated by eleven rectangular doorways on the front, and a doorway at each end. It is pierced also by two pointed archways, 24 feet in height, passing entirely through the building. These arches are walled up and divided into chambers. In the model one is closed and the other is left open to show the construction. The building is exceedingly massive, about

one-half of the entire bulk being solid masonry. The walls, faced with cut stone and with rubble filling, are from three to five feet thick, excepting the back wall which is nine feet thick. There are no windows or roof openings, and the back rooms are necessarily very dark. The chambers are spanned by high pointed arches faced with hewn stone, the insloping ceiling wall being connected by

elaborately costumed human figures, grotesque masks, and geometric fretwork, the whole including not fewer than ten thousand hewn stones, separately carved and laid in mortar against the concrete filling of the wall, forming a great mosaic. The use to which the building was devoted is not known. Since it appears to have been in many respects the most prominent structure in the city, it was



*Reconstruction by W. H. Holmes.*

FIG. 30 THE PALACE, UXMAL.

flat capstones. The lower half of the wall, fourteen feet in height, is plain and contains the doorways, nine feet high, which were spanned originally by wooden lintels now entirely rotted away. The upper wall-zone, fourteen feet in height, is separated from the lower by a heavy molding and surmounted by a wide cornice. The intervening space is richly decorated with sculptures consisting of

probably occupied by dignitaries of the priestly establishment. The model was constructed under the supervision of Mr. Wm. H. Holmes.

The work prepared to finish the picture of Ancient America presented in the California Building is a rectangular panel by Mrs. Smith, finished but not yet cast and set in place. It is called The Spirit of the Past (fig. 31). This



panel is of great size, requiring the entire space of twelve feet square below the large cathedral window. The theme is developed by means of a shrouded, brooding figure, looking out across the ruins of contemporary civilizations—the Maya, Greek, Egyptian—the spirit that has witnessed the growth, decline, and death of the great nations of the world, that has been cognizant of all the forces that have shaped human

events, and that the artist conceives as eternally brooding over the affairs of man, from nation to nation and from age to age through all the cycles of time. The inscription for this panel, from the writings of Charles Kingsley, is an appropriate thought to place at the end of the archaeological exhibit:

So fleet the works of men back to their earth again,  
Ancient and holy things fade like a dream.



By Mrs. Jean Berman Smith.

FIG. 31 "THE SPIRIT OF THE PAST"—SCULPTURED PANEL.

## CURRENT NOTES AND NEWS

### *Primitive Arts and Industries*

In the preparation of the exhibits at the Panama-California Exposition relating to the culture history of the native American race, and the division devoted to Ancient America, Director Hewett was in personal charge throughout. The foundation for the culture history exhibit was laid by the preparation, under the personal supervision of Mr. W. H. Holmes, of a series of groups illustrating, by means of lay-figures, such important steps in the beginning of native American culture as the manufacture of stone implements, the working of ancient soapstone quarries of Catalina Island (fig. 1), the prehistoric obsidian workers of California, the beginnings of sculpture among the ancient Mexicans, primitive copper mining on Isle Roy-

ale, Lake Superior, and prehistoric iron mining in the state of Missouri. This valuable exhibit was further extended to embrace collections representing the evolution of the stone art from its simplest forms to the highest achievements of the shaping of stone and the manipulations of metal.

A series of village group models, illustrating houses and house life in the most important culture areas from Greenland and Alaska to Patagonia were prepared under the direction of Dr. Walter Hough of the U. S. National Museum. Like the series just described representing the evolution of art in stone, this has proven to be of exceptional educational value.

### *Reproductions of the House Life of American Indians*

Field work extending over a period of three years carried on by Mr. John P. Harrington of the School of American Archaeology has resulted in the preparation and installation in the Indian Arts Building of important exhibits reproducing the houses and house life

of the Mohave Indians of the Colorado basin and of the coast and island peoples of California. These reproductions are accurate in every detail and invaluable in preserving phases of native material culture which must in their normal habitat soon completely disappear.

### *The Painted Desert*

Through the munificent generosity of the Santa Fé Railway Company, it became feasible to construct a full sized replica of a typical Indian pueblo (fig. 5), and to fill it with representatives of living tribes, the Pueblo, Navaho, Apache, and Havasupai, engaged in their customary occupations. This exhibit has proved to be one of the most attractive and important features of the Exposition,

and is credited to the genius of Mr. Jesse L. Nusbaum, of the School of American Archaeology. The extent of the work, the accuracy of the reproduction of the rocky site and the completeness of every detail of arrangement and construction places this exhibit on a plane of achievement far above anything of the kind ever undertaken. It is indeed a masterpiece.



*Exhibit of the State of New Mexico*

New Mexico stands foremost among the states of the Union in recognizing the value of its antiquities and making them an asset in the welfare and development of the state. The extensive collections brought together in the state building comprise archaeological and ethnological models prepared by Mr. Percy Adams of the School of American Archaeology at Santa Fé, besides extensive series of specimens, photographs, transparencies, and many other exhibits illustrating the history, archaeology and

ethnology of New Mexico. The building (fig. 6) in the archaic mission style of the Rio Grande Pueblos, antedating the oldest California missions by a century and a half, is one of the most effective in the Exposition city. A replica of this structure will be erected in Santa Fé at a cost of sixty thousand dollars on a site donated by the people of that city, contiguous to the ancient Palace of the Governors, as an addition to the Museum of American Archaeology.

*Physical Anthropology*

The highly elaborated exhibit illustrating the physical history and relative status of the races of man occupies, with the laboratory pertaining to it, five rooms in the Science and Education Building. It was prepared and installed by Dr. Ales Hrdlička of the United States National Museum, who, with the sanction of the Secretary of the Smithsonian Institution, undertook the ardu-

ous task of collecting the material from many sources near and remote. After close observation of the attention paid to this exhibit by the general public and by scholarly visitors from many countries, the Director of Exhibits expresses the view that among existing exhibits within this important field of research it is without a rival and constitutes a distinct and eminent achievement in science.

*A Permanent Museum at San Diego*

There has been formed recently by leading citizens of San Diego a Museum Association, which has for its object the development and maintenance of a public museum for the city. After the close of the Exposition it is hoped that adequate buildings will be placed at the

disposal of the Museum by the City Park Board, and that the Exposition stockholders may turn over the valuable permanent collections to the Museum, as contemplated in the original plans agreed upon by the officers of the Exposition and the Institute.

*The International Congress of Americanists*

The meeting of the International Congress of Americanists will be held in Washington, D. C., December 27-31, 1915, in conjunction with the Second Pan-American Scientific Congress. The Archaeological Institute of America will

hold a joint session with the Americanists on Friday, December 31. Delegates who expect to attend the Congress will kindly communicate with the Secretary, Dr. Ales Hrdlička, U. S. National Museum, Washington, D. C.







